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ORIGINAL ARTICLES.

HYGIENE AND TUBERCULOSIS.

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WHEN Professor Koch first announced the discovery of the tubercle-bacillus, and showed that it was probably the exciting cause of all cases of tuberculosis, many members of the profession felt, and all hoped, that a means both of preventing and of curing this hitherto very intractable malady would soon be forthcoming; and when, later, after bacteriology had attained the dignity of a science, and the germ-theory was generally accepted, Dr. Samuel G. Dixon published the results of his work with devitalized tuberculous matter upon animals, and Koch announced some time afterward similar results upon the human system from his work with so-called tuberculin, the belief was widespread that we were on the verge of the solution of the problem. But when further trials of this new agent failed to sustain the promise of the earlier reports concerning it, the rebound of professional opinion carried us backward and probably beyond the point at which it should rest at the present time.

As for myself, I still have abundant faith that we shall ultimately be able to protect and aid humanity to a greater degree than we do now; for not only is this faith strengthened by my experience and work with Professor Dixon, both before and at the time when he first announced that he had been able to render certain animals immune to tuberculosis, but also because both the progress of science and the logic of events seem to be pointing the way in which such immunity will be eventually secured. Accordingly, I have ventured in the present article to sketch what seems to me to be a logical and scientific course by which a practical method of securing immunity from tuberculosis may be discovered, doing this not so much in a spirit of prophecy as to show that we shall probably still have to employ to the utmost all those hygienic measures that we now know to be of the greatest value in the prevention and cure of tuberculous troubles.

It will be well to note that tuberculosis, whether of pulmonary or other tissues, is a disease essentially different in a number of respects from the majority of other affections due to pathogenic organisms. It is chronic rather than acute; it destroys by slowly undermining and sapping the body's strength rather than by quickly overwhelming the vital activities with toxic bacterial products; it is not self-limited or limiting, and it especially requires a predisposing diathesis or condition of the tissues. By this last statement I do not wish to intimate that other germ-diseases are not favored by an unhealthy or abnormal state of the system, or that the rapid inoculation of large numbers of tubercle-bacilli might not produce the disease in a hitherto healthy subject; but mainly to emphasize the fact that though all dwellers in communities must be more or less liable to the reception of these specific germs, only those that have a peculiar condition of the system, whether congenital or acquired, are especially prone to the disease. For example, Bollinger has shown that one cubic centimeter of sputum from a tuberculous patient may contain from 800,000 to 960,000 tubercle-bacilli, and that the average patient throws off from 30,0000,000 to 40,000,000 of such germs per day; Dr. Prudden, of New York, has computed the number daily from a single patient as over 20,000,000; and Dr. Nuttall, of Johns Hopkins University, has demonstrated that in certain cases they may reach the enormous number of 4,000,000,000 per diem. When we consider how few, comparatively, are the tuberculous patients that take pains to destroy or disinfect their sputum, it is not hard to believe that these parasites are present in considerable numbers in our environment, even though we grant that a large percentage of those expectorated immediately experience conditions hostile to their future growth or existence. Cornet and many others have shown that the bacilli are practically always present in the dust from apartments of tuberculous patients; many gynecologists believe that the increase in cases of tuberculosis of the female organs is due to the prevalence of the germs in street-dust; and Professor Dixon and myself have observed them in considerable numbers in samples of dust from certain of our Philadelphia street-cars.

Can we doubt, then, that each one of us takes into his economy at one time or another, either from the air, drink, or food, sufficient of the germs to cause the disease, were he only in the condition necessary to its inauguration?

Moreover, the study of the malady itself seems to indicate that its progression is due not so much to

the ravages of the hostile parasites as to the vital weakness of the tissues that should naturally oppose and destroy them.

Consequently, the questions that naturally arise are: What is this precedent condition of the body that is usually necessary for the incurrence of the disease? And is not the true protective immunity and cure each to be had by the securing of a change from this tuberculous predisposition to a more normal and healthful condition? Empirically, we know that this latter is just what happens whenever a patient is really cured of tuberculosis.

But what is the abnormal condition? Evidently one of faulty assimilation and abnormal tissue-metabolism. When we study the causes that predispose to pulmonary tuberculosis and other tuberculous diseases we see at once that they are those that favor faulty digestion of food, improper assimilation, deficient oxygenation of the blood, and, dependent upon all of these, the construction of weak, unstable, and unresisting tissues. And though we may seem temporarily to get good results from the use of antiseptics and other drugs, aimed with destructive or retarding intent at the germs themselves, do we not secure permanent benefits only when we employ reconstructives and use measures that will improve the digestion and the oxygenation of the blood, and that will build up new, strong, and healthy tissues instead of weak and yielding ones? Is it not for this that we carefully watch the diet, prescribe outdoor exercise, and send our patients to other climates?

Dr. T. J. McGillicuddy, in a recent article on "The Dietetic and Hygienic Treatment of Consumption,"[1] says: "To secure healthy, rich blood for the repair of diseased tissues we must have proper food and good digestion." "First, we must prepare the digestive tract and the tissues of the body to receive and assimilate the nutriment, and then we must select the most nutritious food, and so prepare it that it will be readily assimilated. Pulmonary tuberculosis is too often considered to be a local disease and treated as such. We must remember to treat the whole system, which is in a pathologic condition. The diet for the consumptive must be a scientific diet, based on a knowledge of what the different kinds of food do for the organism. This (dietetic) plan of treatment to be effective must be systematically carried out, and both physician and patient must steadfastly avoid that complete dependence on drugs which converts the wisest method of treatment into blind empiricism. There are many factors necessary for the successful treatment of consumption—rest, mental and physical, pure, dry air, gentle exercise in the sunshine—are all important; but these are as nothing if the nutrition does not receive proper attention." Nor should we forget that Pettenkofer and Voit have shown that the absorption of oxygen is determined by the nitrogenous substances comprising the tissues of the body, and that, as Fothergill says, "the presence of nitrogenized structure, and its participation in the action going on there, is a necessary condition for the manifestation of any vital energy or any chemical change in the body."

I have indicated in but a general way the state of affairs favoring tuberculosis. We are not able as yet to demonstrate exactly the condition of each organ in a person of tuberculous diathesis antecedent to the beginning of the disease itself, but I am inclined to believe that a close study of most cases will show that there are primarily imperfect digestion of proteids, abnormal hepatic action, and certain changes, both of kind and quantity, in the nitrogenous products of metabolism. In other words, the stomach and liver are more often primarily at fault than the lungs, though it may happen in some cases that the derangement of the former organs was at least partially due to faulty respiratory action or habits, bad air, imperfect oxygenation of blood, etc.

Just here I would suggest a hypothesis that appears to me, upon rather thorough investigation and inquiry, to be altogether new. May not the condition of the blood, as expressed by its coagulability, be a measure or index of the kind of tissue, as regards firmness and resisting power, which is constructed from it or by the metabolism of the body? The clotting of the blood and formation of fibrin by the antecedent production of fibrinogen, fibrinoplastin, and, possibly, a third substance, seems, at first sight, to be an extremely elaborate and unnecessarily excessive expenditure of energy on the part of Nature to provide for emergencies or conditions that are always abnormal, especially as she is prone to act simply rather than complexly, whenever possible. Why may not the principal purpose of the fibrinogen, fibrinoplastin, etc., in the blood be to assist in the construction of the active and supporting tissues of the body rather than to form fibrin solely to repair lesions of the circulatory system?

In addition, we may note that certain substances which increase the coagulability (*i. e.*, the fibrinogen, fibrinoplastin, etc.,) of the blood have been successfully used to produce temporary immunity, at least from tuberculosis and kindred diseases in susceptible animals, and that their analogues or derivatives are to be found in excess in the blood of those who are of a diathesis the opposite of that which we call scrofulous or tuberculous; while, on the other hand, substances known to decrease the blood's coagulability are very likely to be found in

[1] The Dietetic and Hygienic Gazette, November, 1894.

the circulation of those whose digestive functions are of the faulty character that predisposes to tuberculosis. For example, Dr. Dixon has shown, in an article to be mentioned later, that the substances employed by himself, Koch, Vaughan, and others, in their experimental work on this subject are all analogous and more or less closely related to the amid group of metabolic products; while we already know that such substances as nuclein, leucin, tyrosin, glycin, etc., increase the coagulability of the blood,[1] and, *per contra*, that albumoses, products of the imperfect digestion of proteids, decrease and even temporarily destroy the coagulability of the blood,[2] and everyone knows how prone tuberculous patients are to hemorrhages that are difficult to control owing to this lack of coagulability. There also seems to be a very decided relationship between the susceptibility of the various animals, including the healthy human being, and the coagulability of the blood of the respective individuals, though I must admit that there is not so much evidence at hand as I would like to have on this point.

Believing that much more can be adduced in support of the hypothesis suggested, and that it is not altogether a visionary one, I shall hope to be able to discuss it more thoroughly in a future paper. Reverting to our theme, it is essential that we should discover, if possible, the manner in which the tubercle-bacilli inaugurate the disease in a subject predisposed or susceptible to it, and the means or method whereby the predisposition or susceptibility of the whole constitution of that subject may be so altered that the germs may have no power of virulence, growth, or vitality within the system.

As to the former, we know that tuberculosis proper, that is, the formation of miliary tubercles, always begins as a coagulation-necrosis, and as we may consider from the statements and definition of Vaughan that the specific product of the tubercle-bacilli is a nuclein, which latter is one of the class of substances increasing the coagulability of the blood, it is not impossible that the following process occurs in the susceptible subject: A certain number of the bacilli finding lodgment in a certain part of the system, such as one of the alveoli of the lungs, and escaping immediate destruction, owing to the weakness of the body's resisting powers, begin to multiply and to elaborate their special product, at the same time acting as a focus of irritation, and causing a determination of leukocytes to the immediate neighborhood of their nidus. Then, as soon as the toxic product is in sufficient quantity, either acting directly or by inaugurating the reactionary production of a secondary nuclein by the leukocytes, localized and circumscribed coagulation occurs, and the enclosed leukocytes are deprived of nutrition, and are powerless further to oppose the parasites, which, still multiplying, continue the process so familiar to every pathologist. Whether the foregoing picture of the incipiency of the tuberculous process is a correct one or not, the consideration of the means for securing immunity does not depend upon it, for the latter has been shown to be based on the antecedent condition of the system rather than on the actual processes of the disease.

The fact that such investigators as Dixon, Koch, Vaughan, and others have been able to secure a condition of immunity in many susceptible animals is proof that we shall ultimately be practically successful with the great mass of human beings. To the objection that some may raise, that the conditions are not the same in the two classes of subjects, I think that, following out the thought suggested in the foregoing coagulability (?) hypothesis, it can very likely be shown that the difference, whatsoever it may be, is one of degree rather than of kind.

The first thing to be noted is the close relationship existing between the agents employed by all those who have obtained notable results, and of these agents to the nitrogenous products of normal animal metabolism. As Dixon was the first to secure anything like immunity to tuberculosis in animals—I myself having seen him do this almost if not wholly a year before Koch's announcement of his work with tuberculin—so he was the first, I believe, to show that there might be produced from cultures of the tubercle-bacilli a substance strongly resembling certain well-known nitrogenous products of metabolism, and that these latter would give, when injected into both healthy and tuberculous subjects, closely similar results to those obtained by the injection of his protective material and the practically identical tuberculin.[1] More recently Vaughan, who is using the nucleins of yeast-cells and of the spleen in this work with apparent success, has shown that the nuclein-bases yield bodies of the xanthin-group, which latter, in turn, are very closely related to the amid metabolic group of which I have just spoken.

In this connection it will not be out of place for me to call attention to Dr. Dixon's most recent and extremely interesting article on "The Possible Relationship Between the Tubercular Diathesis and Nitrogenous Metabolism,"[2] in which he not only considers this relationship much more fully and thoroughly than I could venture to do at this time, but also proposes a line of experimentation which

[1] Waller's Human Physiology, 1893, pp. 19–20.

[2] Ibid., p. 23.

[1] Vide proceedings of the Academy of Natural Sciences, November 18, 1890, and February 21, 1894. Also, the Times and Register, September 26 and October 17, 1891.

[2] Therapeutic Gazette, December 15, 1894.

I feel would yield valuable and interesting results if carried out. He has even gone so far as to suggest "that it might possibly be advisable to endeavor to produce a temporary condition of gout or lithemia in our tuberculous subjects, hoping thereby to possibly supply that in which the pathological tissues are deficient or to alter the condition of the tissues either in kind or degree—to change the soil, as it were, so that either the hostile pathogen could no longer find in those tissues a suitable nidus, habitat, or environment, or that the vital activities and resisting agencies of the body would be increased and strengthened sufficiently to overcome the disease-germ before it could multiply and produce its harmful effects in the body." It is also interesting, inasmuch as many now believe the therapeutic efficacy of cod-liver oil to be dependent upon its alkaloids, to note that three of the latter closely resemble urea in structure and formula, and that the other three are closely related to a combination of the glycerin and amidogen radicles.

By this I do not mean to create the impression, any more than does Dr. Dixon, that by the use of the amids results or reactions are to be obtained exactly similar to those due to tuberculin; for the latter, being a specific product of the bacilli, most probably causes a specific action in those cells and tissues that react to it, just as the diphtheria-antitoxin of Behring and Roux is produced only by the influence of the peculiar product of the diphtheric bacilli.

With this evidence, and granting that the opinion expressed in the earlier part of the paper, that in most cases of predisposition there is "primarily imperfect digestion of proteids, abnormal hepatic action, and certain changes of kind and quantity in the nitrogenous products of metabolism," is well founded, it certainly is not difficult to surmise a connection between these various amid substances, all more or less closely related, and the metabolic activities and functions concerned in the production of a predisposing diathesis.

We have as evidence of the manner in which the inoculation of these toxins, nucleins, etc., secures or induces protection the work of Buchner, Nuttall, Vaughan, McClintock, and others, which goes to show that the inoculated substances incite or stimulate the leukocytes, and possibly other active cells of the body, to the elaboration and secretion into the blood-serum of secondary nucleins, antitoxins, alexins—call them what we will—which are not only germicidal but also antagonistic and, as it were, antidotal to the bacterial poisons. This is the principle underlying the new serum-therapy, which is apparently proving itself so successful in the treatment of diphtheria, tetanus, etc., and we may thus the more readily accept the reports of Viquerat's success in gaining immunity from tuberculosis by the use of the serum of asses, though even in his case it will doubtless be found that, like Dixon and Koch, he has for his primary agent the toxin or nuclein of the tubercle-bacilli.

From this point we may take one step further, to inquire into the physical nature and structure of the cells secreting the protecting alexin, and then we must wait for light to be shed in the future upon the still hidden processes of the body. Bütschli has arrived at the conclusion that the framework of protoplasm must be "a fluid substance insoluble in water," and that "it must be formed by a body which has arisen from a combination of albuminoid and fatty acid molecules;" while Reinke believes that this so-called *plastin* is a "combination of albumin and *nuclein*, possibly further accompanied by a number of molecules of a fatty acid belonging to the stearic or oleic acid series."[1] The connection between this and what has already been said about protective nucleins (alexins), and also in relation to my hypothesis regarding the constructive functions and processes of the body, must be obvious to everyone.

In the foregoing I have tried to collate and arrange logically the knowledge that we already possess concerning this important question, and though it is difficult to place the facts in their proper order, and the proofs of some of them may not be so positive as we should like them to be, I trust that I have made clear the points in question, viz.: That a predisposing condition is essential to the inception of the disease; that immunity has been produced by a number of investigators in susceptible animals; that the substances thus successfully used are very analogous one to another; that they probably act by stimulating the leukocytes and other active cells of the body to the production and secretion into the blood-serum of nucleins or alexins which tend to neutralize the bacterial poisons, and that these agents, favoring immunity, also increase the coagulability of the blood, which being decreased in the tuberculous condition and for other reasons given, may possibly be important as an index of the formative or constructive powers and processes of the system. I also hope the paper may serve to indicate the direction in which we can reasonably look for further advances in this important matter. But, though there is fair promise for future success in the protection of humanity against tuberculosis, we must not forget that whether this be attained through the inoculation of tuberculin, nucleins, serum, amids, or, possibly, other substances that will increase the formative and constructive powers of the blood and tissues, there wil

[1] Bütschli: Protoplasm and Microscopic Foams.

always be prime necessity for the additional and assiduous employment of those broad hygienic measures, such as exercise and life in pure air, respiratory gymnastics, freedom from mental worry or fatigue, improvement in gastric and hepatic digestion, etc.; and I do not go too far, perhaps, in saying that without these latter the use of inoculatory methods alone will probably prove illusory and far from satisfactory. In other words, it is the predisposition rather than the attacking pathogen that needs attention, for with the former wanting the latter will be impotent for evil under all ordinary conditions. By this I would not deprecate the use of protective inoculations in all predisposed or incipient cases as soon as the proper substances and the means of using them shall be surely known; but simply advise against the error of placing sole reliance upon them to the exclusion of what must always be of paramount importance.

ANESTHETICS IN THE EARLY AND MIDDLE AGES.[1]

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AN anesthetic may be defined at the present time as any agent that will produce anesthesia, which condition, according to Wood, is loss of consciousness produced or accompanied by loss of sensibility or diminished muscular action. As to how this is brought about, the various theories are too numerous to entertain here. It will suffice to say that the action of such an agent is undoubtedly through the nerve-centers. A few of the plausible theories are: Partial arrest of oxidation; precedent physical changes in the blood, due to cerebral anemia (like sleep); the well-known theory of Claude Bernard, that it is produced by semi-coagulation of the nervous protoplasm.

Many, if not all, anesthetics have the power of dissolving the red blood-corpuscles, and as Ludimer Herman stated in 1866 that protagon, which constitutes the stroma of the red blood-discs, is an important constituent of the nerve-centers, and as death would necessarily occur before this could be dissolved out of the nerve-centers, *i. e.*, before it could be dissolved out of the red corpuscles, the evidence is that no extensive destruction of the latter bodies can occur from the action of an anesthetic and the subject survive. It is interesting in relation to our modern information on the subject of ptomaïns and toxemia that Herman states that bile-acids also dissolve protagon, and experiments made by him seemingly indicate that they have anesthetic properties. This ingenious theory of Herman has not, however, been entirely proved.

Regarding Claude Bernard's theory, from a conclusive standpoint, we can only apply the term "assumptive" to it. It seems that the lungs are simply avenues through which the anesthetic passes on its way to the central nervous system by means of the blood, and that, other things being equal, if the same condition is produced through other avenues than the lungs the condition will be the same so far as surgical utility is concerned.

In the hurry and rush of this nineteenth century we are continually losing sight of agents that have been valuable in more senses than one to our predecessors. Among the most important of the drugs used for the production of anesthesia by the ancients is atropa mandragora or mandrake, which somewhat resembles the atropa belladonna of the present day, but this drug is not identical with our mandrake. It has been fully described by Dioscorides, and later by Pliny, the former stating that wine of mandrake was used in cases of amputation or of cautery, to prevent pain, and speaks of the pure juice used in the form of a suppository to induce sleep. Pliny says: "Mandrake is taken against serpents, and before cutting and puncture, lest they be felt. Sometimes the smell is sufficient." According to Apuleius, half an ounce of the wine would render a person insensible even to the pain of amputation. This preparation was used extensively by the Grecian physicians, and known to them as "morion." According to Lyman, the Biblical expression found in the 15th chapter of Mark, verse 23, "Wine mingled with myrrh" (which was offered according to the custom by pitying souls of that day to Christ on the cross) was unquestionably the same anesthetic wine.

That the ancients also understood the use of combining drugs is shown by the following quotation from Dioscorides, mentioning the method of preparing the sleeping apple: "Opium, mandragora, juice of water hemlock, and the seeds of hyoscyamus and musk; the apple (so he states) when repeatedly smelt softens down and binds the eyes in sleep." The juice of the root of fenugreek or trigonella fœnum was applied to the nostril to bring the patient back to consciousness. He also says physicians used this when they were about to burn or cut. Galen refers to its power to paralyze sensation and motion. According to Paulus Ægineta, Isodorus writes: "The wine of the drug of the root is given to those about to go under an operation that, being asleep, they may feel no pain." Serapion says that it is administered as an anesthetic prior to operation. Again, Theodorica, the famous surgeon of the school of Bologna, was in the habit of using a combination of hyoscyamus, hemlock, lettuce, ivy,

[1] Read before the New York County Medical Association November 19, 1894.

mandragora, belladonna, and opium. This was administered upon a sponge previously saturated with hot water, used before operations, the patient being aroused by instilling the juice of rue in the ear. We can still see traces of this practice of ear-instillation in Shakespeare's death of King Hamlet. Mandragora was also used to avoid the pains of labor.

Our predecessors were enabled to bring the preparation of so-called anesthetic drugs to greater perfection after the introduction of the process of distillation by the Moslems, and William Bullein, a celebrated anesthetist, who lived in the reign of Henry VIII, described the preparation of his anesthetic mixture as "the juices of a certain herb pressed forth and kept in a closed earthen vessel, according to art (probably distillation), bringeth deep sleep and casteth man into a trance or deep terrible sleep—until he shall be cut of the stone."

In the writings of the poets we see innumerable references to anesthetic drugs. Shakespeare says:

> CLEOPATRA: "Give me to drink mandragora,
> That I might sleep out this great gap of time,
> . . . . . .
> My Antony is away."
> *Antony and Cleopatra*—Act I, Scene 5.

> IAGO: "Not poppy, nor mandragora,
> Nor all the drowsy syrups of the world
> Shall ever medicine thee to that sweet sleep
> Which thou owdst yesterday."
> *Othello*—Act III, Scene 3.

and in more modern times Mrs. Browning says:

> "Have the pigmies made you drunken,
> Bathing in mandragora?"
> *Dead Pan*, II.

And finally a French writer says, "Like a patient sent to sleep with mandragora, I do not feel my disease."

Sir B. W. Richardson, of England, about 1873 demonstrated unquestionably the anesthetic properties of mandragora.

Wood says, "I know by experiment that vapor of alcohol is capable of producing the stupor known as anesthesia, and, further, that this may be deepened into death accompanied by the phenomena of fatal ether-narcosis." About the twelfth century Albertus Magnus wrote about a liquid which he called aqua ardens, which was obtained by distillation from a mixture of the following: Red wine, quicklime, common salt, and green figs. By dissolving this we undoubtedly would get a concentrated alcohol with perhaps a little more than a trace of ether. This aqua ardens was used for the production of anesthesia.

The Chinese used cannabis indica or a drug closely allied to it for the prevention of pain during the operation of acupuncture.

Herodotus states that in early times anesthesia was produced by inhalation of bhang or hasheesh, even before the use of mandragora, and it was used for the express purpose of operative procedure. He also states that the Greeks were familiar with the use of the drug. Literature on the subject also shows that the Scythians were in the habit of producing intoxication by means of inhalation of the vapor of hemp, and experiments made by Prof. Wood, of Philadelphia, on himself, show undoubtedly that this drug will produce unconsciousness for a certain time.

It is probably well known that Dr. Esdaile (according to Mr. James Braid) performed upward of three-hundred capital operations in India, many of them of the most terrible nature, without pain, using hypnotism as an anesthetic; and in 1829, Cloquet ablated the breast of a woman without pain, while in a hypnotic state. A similar process was known among the early Greeks, "touching them with his hands, he (the physician) quickly makes them whole." And we see here the connection in the laying on of hands (in some of the ceremonies) of the Greek and Latin Churches, notably the extreme unction of the Roman Catholics. Another means of producing anesthesia was that of the ancient Assyrians, who alleviated and even entirely prevented pain incident to circumcision by compressing the veins in the neck, and also probably the carotids, producing cerebral anesthesia.

Comerarius, writing A. D. 1625, says that anesthesia may be produced by means of a gas obtained by treating certain drugs in vessels.

Boerhaave, in one of his Aphorisms, shows the use made of volatile oils according to this prescription:

℞.—Oil of cinnamon	. . . . .	gtt ij.
Oil of cloves	. . . . .	gt j.
Citron peel	. . . . .	gr. ij.
Sugar	. . . . .	℥ij

M. et adde red coral, prepared, ℥j; pure opium, gr. ij.
Mix for two doses, one to be taken an hour before the operation, and the other fifteen minutes before, if the patient be awake.

Guillaume de Sallaste Du Bartos writes in 1544:

> "Even as a surgeon, minding off to cut,
> Some useless limb, before in use he put
> His violent engines on the vicious member,
> Bringeth his patient in a senseless slumber,
> And griefless then (guided by use and art)
> To save the whole, cuts off the infected part."

Boccaccio, in the story of Dioneus, gives an account of the anesthetic mixture of Surgeon Mazzeo de la Montagnos.

Moore, of England, 1784, tried to produce the effect of anesthesia by means of clamp-like devices which pressed on the nerve-stems of the extremities about to be operated upon, and, as every one is well aware, in 1799, Sir Humphry Davy discovered the intoxicating effects of nitrous-oxid gas, which led to

the discovery and use of the modern alcoholic series of anesthetics.

BIBLIOGRAPHY.

Practical Medicine of Galen and His Time, British Medico-Chirurgical Review, vol. xi, 472–488.
Hippocrates. By J. Batty Tuke. Encyclopædia Britannica.
Gibbon: Decline and Fall of the Roman Empire.
Thos. K. Chambers: Bloodletting in Olden Times, British Medico-Chirurgical Review.
Adams: The Works of Hippocrates.
Pettigrew: Memoirs of Physicians and Surgeons.
—— Epigrams of the Tombs.
—— History of Egyptian Mummies.
Claudii Galeni: Medicorum Græcorum Opera.
Plutarch's Lives.
Holy Bible.
Wood: Materia Medica.
Hare: System of Therapeutics.
Austin Flint: Physiology.
Bridges: Fowne's Elementary Chemistry.
George Foy: Anesthetics Ancient and Modern.
Buxton: Anesthetics.
Lyman: Anesthetics.
Corning: Local Anesthetics in Medicine and Surgery.
Smith: An Inquiry into the Origin of Modern Anesthesia.
Decameron, Boccaccio.
Shakespeare.
Browning [Mrs.].
Foy: Report of Hyderabad Chloroform Commission.
C. Tulii Cæsaris: Commentorii De Bello Gallico.
Boerhaave: Aphorisms.
Apuleius.
Dioscorides.
Serapion.
Herodotus.
Isodorus.

243 WEST TWENTY-FIRST STREET.

INTRA-ABDOMINAL SHORTENING OF THE ROUND LIGAMENTS FOR RETRO-DISPLACEMENTS OF THE UTERUS.

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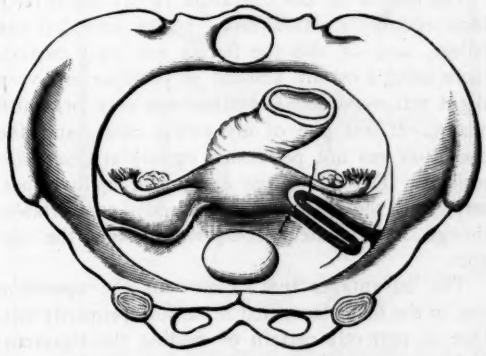
THE treatment of posterior displacements of the uterus by operative procedure has come to be recognized as, under certain conditions, fully justifiable. The plans followed by most operators in this country may be grouped under two heads:

First. Those having for their object the shortening of the round ligaments outside of the abdomen (Alexander's operation and its modifications); and, secondly, those in which either the uterus is fixed to the abdominal wall, or the round ligaments are shortened between the uterus and the sides of the pelvis within the abdominal cavity.

Of Alexander's operation I have nothing to say. It has its advocates, while there are many who unhesitatingly condemn it. My experience has not been sufficient to allow me to give an unqualified judgment. I, therefore, refrain from giving any. As regards ventral fixation, it has always seemed to me to induce an unphysiologic condition. The uterus is not normally attached to the abdominal wall, and it is hard to understand how attachments made in this way can take the place of the natural supports. I have, therefore, always preferred an operation that accomplishes the shortening of the round ligaments from within. A number of plans have been suggested, notably those of Drs. Polk and Wiley. I have no new plan to suggest, but simply a modification of one of the old ones. It is not necessary for me to review the various steps by which I arrived at the procedure that I now follow, but I shall at once describe it:

First. A moderate-sized opening is made in the abdominal wall. Any adhesions that may bind down the uterus are broken up, and diseases of the tubes or ovaries that may demand attention are properly treated, either by the conservative method or the diseased organs are removed. The patient is then placed in the Trendelenburg position, a large, flat sponge spread over the intestines, and the uterus pulled up as near the abdominal wound as possible. By pulling the uterus to one side the round ligament on the opposite side is put more or less upon the stretch, and made distinctly visible. The ligament is then seized with two long-handled hemostatic forceps, the points of seizure dividing the ligament as nearly as possible into three equal portions. A little lapping over of the parts and comparing will tell whether the division is equal or not.



The next step consists in passing a needle threaded with silkworm-gut through the loop nearest to the abdominal wall, the needle being then made to pass under the point where the round ligament is inserted into the uterus, a considerable quantity of uterine tissue being included in the suture. The hemostatic is then removed, and the loop of ligament tied to the uterus. It is necessary when the ligature is first pulled that it should not be drawn too tightly; but the second half of the knot should be tied as tightly as possible in order to prevent slipping. The ordinary square knot is the one

used. The ends of the silkworm-gut are cut off quite close to the knot. A second stitch is passed through the ligament just as it leaves the abdominal wall, and then through the loop in that portion of the ligament nearest to the uterus. The ligature is tied and cut as before. In this way the ligament is doubled on itself twice, and three thicknesses of round ligament are stretched between the sides of the pelvis and the front wall of the uterus. The same thing being done on the opposite side, the wound is closed as usual. Reference to the cut will make it clear.

The material used for ligature may be silkworm-gut, as I have indicated, or ordinary silk. I prefer the former, but have sometimes used silk. I have performed the operation many times—upward of thirty—and have never seen any harm resulting from the silkworm-gut. It seems to me better to use a ligature that will not be absorbed, and to trust to its sustaining power, rather than to use an absorbable ligature and trust to adhesions alone. The adhesions will, I believe, eventually be absorbed and the end of the operation defeated.

The point at which the needle should pierce the ligament is of some importance. The artery runs just below the ligament, and if it be included in the ligature harm might result. By penetrating the ligament so as to include about two-thirds in the grasp of the needle the artery will certainly be avoided.

The results of this operation in my hands have been eminently satisfactory. I have seen but one failure, and in this the failure was only partial, there being a certain amount of prolapse and very slight retroversion. The uterus was very large and heavy. It was one of my earlier cases, and the operation was not performed exactly as I have described. The uterus was easily held up by a pessary, and the patient is perfectly comfortable, though, unfortunately, compelled to wear the support.

The advantages that I claim for the operation are, in the first place, that it cannot primarily fail. One is perfectly certain of finding the ligaments and of shortening them to any required degree. Secondly, the uterus is left in its natural position, and supported by its normal ligaments. There are no loops or holes for intestines to enter, thus causing intestinal obstruction. Should pregnancy occur the uterus is left free to move and to rise, as may be required. By the use of a non-absorbable ligature the result is likely to be permanent. The only way failure can result is through the cutting out of the ligature, and if it is not tied too tightly this is very unlikely to occur.

The indications are as follows:

1. Whenever the lower portion of the abdomen is opened, in the case of retro-displacement, for any object whatsoever.

2. When the retroverted uterus is adherent.

3. When there is coincident disease of the appendages.

4. In simple cases when a pessary does not accomplish the desired result, and when the operator prefers this operation of Alexander's.

The objections to the operation are that it opens the abdomen for what may seem a comparatively unimportant disease, the dangers being those inherent to any celiotomy. The actual dangers to life are, in my opinion, so trifling as to be scarcely worthy of notice. Nor are they greater, I believe, than in Alexander's operation. There are cases recorded in which Alexander's operation has been followed by peritonitis and death,[1] and in many instances the peritoneal sac has been opened in peeling it from the ligament. A properly performed celiotomy is as little dangerous as almost any operation that is performed under an anesthetic.

The real objection to my mind is the presence of a wound in the abdominal wall. That this is a real objection cannot be denied. The dangers of abscess, of ventral hernia, and adhesions of intestines causing obstruction are very real, and I must confess to having met with all of them more than once. Their infrequency, however, when the operation is carefully performed, so far diminishes the risk that they ought not to count very heavily. If, for instance, we compare the operation with Alexander's operation, there is an equal danger of suppuration, almost equal danger of peritonitis, and unquestionably, if Alexander's operation is performed by opening up the inguinal canals, there is a danger of hernia, a fact that has been observed.

I do not wish to compare this operation with Alexander's operation, but merely to show that it is not in reality much more dangerous. When the abdomen has to be opened these objections all vanish, and it remains to my mind the best operation yet proposed for sustaining the uterus in its normal position. The tendency in these days is to give up the abdominal incision, making all operations *per vaginam*. A great objection to this mode of operating is that with it, as yet, no thoroughly reliable method of fastening up the retroverted uterus has been invented. Dr. Polk, I know, has reported some cases in which a suture was passed through a partial abdominal incision into the fundus. It seems to me that this cannot be relied upon for certain success. Adhesions formed in this way will, I am sure, soon be absorbed, and the uterus be allowed to drop back as badly as before. Doubtless some method will be invented to over-

[1] British Gyn. Journ., November, 1894, vol. x, p. 408.

come this difficulty; but, until it is done the advantages seem to me to lie with celiotomy when retroversion exists.

It may be objected that the amount of shortening of the ligaments by this plan will be too great. I can only answer that I have not found it so. The ligaments in these cases are always greatly relaxed. Moreover, they are elastic, and will bear the necessary stretching very well.

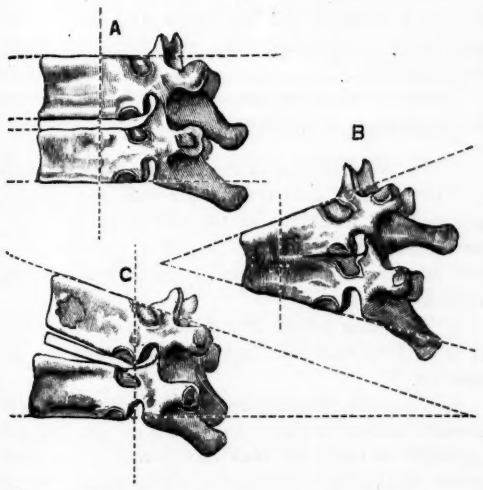
In conclusion, I can only ask that the operation be given the test of experience. I am sure it will be found easy, certain, and effective.

AN ORIGINAL METHOD AND APPARATUS FOR APPLYING PLASTER-OF-PARIS JACKETS IN POTT'S DISEASE.[1]

BY R. TUNSTALL TAYLOR, M.D.,
OF BALTIMORE.

MY aims in this apparatus have been, first, to put the patient in as comfortable a position as possible, in which, at the same time, he can keep reasonably quiet while the jacket is being applied; and, secondly, that the position shall be such as to elevate the ribs and cause a backward bending of the spine, producing a certain degree of lordosis, involving both the dorsal and lumbar regions. This is done in order that the center of gravity of the spine may be thrown further backward and the superincumbent weight be removed, more or less, from the diseased body or bodies of the vertebræ, to the healthy transverse and articular processes (Fig. 1, A, B, and C).

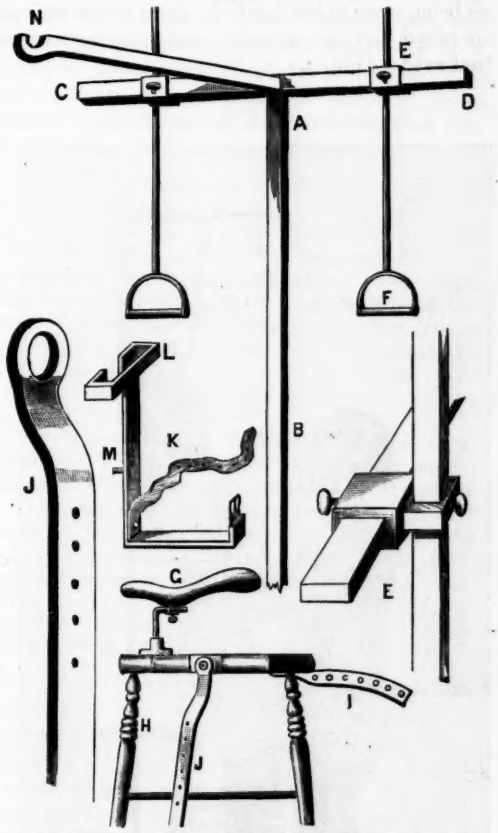
FIG. 1.



Diagrams showing:
(A) Normal position of adjacent vertebræ;
(B) Falling forward of the vertebral bodies in caries of the spine;
(C) The aim of treatment of Pott's disease by means of spinal extension in its true sense;
—— —— —— = The planes of the vertebral bodies;
- - - - - - - = The line of the center of gravity and of the superincumbent weight.

The first of the aims, a comfortable seat, is met by utilizing a stool (Fig. 2, H), on which is fastened a bicycle-seat (G), taking up no space laterally.

FIG. 2.



Diagrams showing the details in the mechanism of the Taylor plaster-jacket stool. (See text.)

The feet are supported on stirrups (K), made adjustable by a sliding-joint and pin (L and M). This sliding-joint works on a rigid rod (J), which in turn can be moved through an antero-posterior arc, so that the legs of the patient can be put in any desired position, by means of a bolt which passes through the arc and rod.

The second aim, that of the production of lordosis, is met by having an upright (A B), which extends some distance above and behind the patient's head, and has a cross-bar (C D) on its top, making a T. From this cross-bar descend rods (E F), on which are handles (F). These rods are made

[1] Paper read and the apparatus shown to the Johns Hopkins Hospital Clinical Society, January 20, 1895.

adjustable at the cross-bar for long or short arms, broad or narrow shoulders, by a double joint (E), by which they can be moved up or down, and also sideways. The central upright is attached near the bottom of the stool behind, by a joint, which allows motion in an antero-posterior direction, regulated by a set-pin and arc (I) which project back from the seat. Thus it will be seen, when the patient grasps the handles, his arms being stretched upward and the central upright is moved backward, the pelvis being more or less fixed, the result is that the ribs are raised and the shoulders and spine are curved backward. (Fig. 3.)

FIG. 3.

The application of the jacket on the stool.

Then the jacket can be easily applied and carried higher up and closer over the sternum than is possible by other methods, an end which we wish to gain in all jackets for Pott's disease, thereby preventing, as far as possible, the forward bending of the spine, and with it compression of the diseased vertebral bodies.

Thus far the advantages presented by this apparatus seem to me to be:

1. The jacket thus applied fixes the spine in the most advantageous position for lessening the tendency for the production of deformity, and when a plaster jacket is indicated for any reason in preference to a steel back-brace, this method I have found the most efficient in applying it.

2. The rapidity and ease with which a jacket may be applied, an advantage of no small moment in a crowded out-patient plaster-room. These jackets require, as a rule, no trimming at the crease of the groin in front or in the axillæ, notwithstanding that they are carried high up on the sternum.

3. It seems applicable to dorsal and lumbar caries, especially the former. In high dorsal caries (*i. e.*, in disease above the seventh dorsal) the jacket should be supplemented by a "head-support."

4. It seems comfortable to the patient, as the thorax is well supported and the superincumbent weight is removed from the diseased vertebral bodies to the healthy articular processes and hips.

5. It is not an expensive apparatus.

I wish especially to emphasize the importance of the rigid supports for the hands and feet in this apparatus, as swinging ones were tried and found unsatisfactory.

Certain precautions are necessary for the successful application of a plaster jacket by this method:

1. To avoid fatigue to the patient, the arms need not be elevated after the handle-rods and uprights are adjusted, until just as the plaster rollers are to be applied, which, although but a question of a few minutes, will be found a point worth noting clinically.

2. To insure a close-fitting jacket over the pelvis, it is well to have the legs fully extended on the stirrups.

3. To avoid breaking up adhesions that may have already formed in partly ankylosed spines, it is not advisable to carry the backward bending to a point where discomfort is produced, which should be our guide in fixing such cases.

Finally, in many cases to apply a comfortable and successful jacket, a forward projecting-rod is fastened to the central upright (Fig. 2, N), from which a head-sling extension can be used to insure additional support and steady further the patient when restless, nervous, or in pain.

2000 MARYLAND AVENUE.

The Monatschrift für Geburtshülfe und Gynaekologie is a new publication under the editorial charge of Prof. Martin, of Berlin, and Prof. Sänger, of Leipsic.

IS THIS THE NINETEENTH CENTURY?

BY RICHARD SLEE, M.D.,

LATE PATHOLOGIST TO THE NORWEGIAN HOSPITAL; PATHOLOGIST TO THE CENTRAL THROAT HOSPITAL AND POLYCLINIC DISPENSARY; ASSISTANT PATHOLOGIST TO THE METHODIST EPISCOPAL HOSPITAL, AND ASSISTANT TO THE DEPARTMENT OF PHYSIOLOGY, HOAGLAND LABORATORY, BROOKLYN, NEW YORK.

THE interesting article on physio-medicalism, by Dr. Nichols, and the bright and overflowing editorial in lieu of a review on the "Essentials of Homeopathic Therapeutics," in recent numbers of THE MEDICAL NEWS, have tempted me to bring to the notice of the profession a school of medicine with which few of my co-workers are probably familiar. Perhaps the quickest method of explaining will be to report several cases bearing on the treatment.

CASE I.—I was recently called to attend a young man who had an incised wound on the dorsum of the foot from which there was persistent arterial hemorrhage. This was on Thursday, the wound having been received on the previous Monday; the young man's condition was, of course, bordering on *extremis*. A few stitches at once controlled the hemorrhage, and he made an excellent recovery.

I was not surprised to find that everything from Mustang Liniment down to cobwebs had been used in the endeavor to control the bleeding before calling me in (though my office was only a few rods from the boy's home), but I was simply astounded to find that among the numerous things done was the calling in of a "pow-wow doctor."

Pow-wow is the term given to a form of incantation that I find very much in vogue among the native population. Let me also add that these "doctors" are said to accept pay for their services. The possessor of the charm, whether man or woman, comes by it through several channels: a man who is the owner of a charm may tell it to a woman, or a woman may tell it to a man, but should either chance to tell one of the same sex—*presto*, change!—the one told becomes the possessor, and the narrator is "out in the cold!" Charms are, therefore, well guarded. When a pow-wow doctor is about to shuffle off this mortal coil there is great scampering to see who can secure the charm, as it possesses more potency when one becomes possessor in this way. As I am an outsider, so to speak, and a to-be-expected opponent of this form of medical practice, I have found it difficult to gather many data regarding it; but from a very few skeptics I have been able to glean a few facts. As a rule, a pow-wow doctor is a specialist, one pow-wowing for fits, another for worms, another for hemorrhage, the next for rickets, and so on. With all these experts in their several branches, I, of course, suffer just as much as my young brethren do in the city, for I am only a general physician. I have not been able to learn the secrets of any of the charms, but I have found that they consist in repeating certain portions of Holy Writ in such a manner as to be unintelligible to the hearers, at the same time performing certain impressive ceremonies. In the case of hemorrhage the pow-wow doctor filled a large shovel with live coals, and marched round the sufferer's bed, repeating his pow-wow. This he did three times, the number three playing an important part in this line of treatment. All well-behaved hemorrhages should cease after this; but, as in this case, the hemorrhage forgot its manners, and the boy fainted from loss of blood, I was sent for, and was enabled to demonstrate the superiority of a couple of properly applied sutures over all the pow-wows they could command. In place of being thankful to me for saving the boy's life, I am sure they detest me for upsetting their idol.

CASE II.—Another patient whom a number of physicians saw, and, according to the parents, could not help, was that of a rachitic child, who was treated by an old woman pow-wow, and cured by the following simple line of procedure: The child's back was shaved with a sharp razor to cut off the *heads of the worms* which were causing the disease (pathologists should make a note of this), and the parts were then anointed with some oil. The *séance* was thrice repeated, and a complete cure was the result.

CASE III.—I was called to see a child who was "*liver grow'd*"—an anatomic or pathologic condition of which I must confess to be ignorant in spite of a rather large post-mortem experience. The treatment previously to my being called in consisted in passing the child through a horse-collar, then around a table-leg, not forgetting the charm to be spoken during the act. Calomel, gr. ii, cured this critical condition in twelve hours, and I made another enemy.

I could go on indefinitely, relating the histories of similar cases; but these will illustrate my school of medicine, which is to-day flourishing within one-hundred miles of Philadelphia and New York. Among what class of people and where? Not in the backwoods, but in a thickly settled and prosperous district, and among people of moderate education. The pow-wow referred to as treating the patient in Case I was a man of some attainments, the father of the boy being the mainstay of the village (Methodist Episcopal) church, who, when he prays and exhorts does so in such an audible tone that in summer I am constrained to take to the woods. I beg not to be understood as scoffing at religion, as I am a firm believer in it; but I somehow cannot expand my limited intellect to understand a synchronous belief in the two forms of faith.

This question, however, has a serious side, and one that I think the profession should join in endeavoring to improve. Coming from another State, I was required to take an exhaustive examination before being allowed to practise. The reason for all this red-tape I cannot see, as apparently my duty

to the county and its own duty to me end with my paying my dollar for the privilege of registering. We have no Board of Health, no registration of deaths or of births, at least none for the doctor to sign; in fact, it makes not the slightest difference whether there has been a physician in attendance or not. It frequently happens when an old person is taken sick that a doctor may not be called in, or not more than once or twice, because the patient is old enough to die, and there is no use in spending good money upon him. Fatal accidents happen which in the city would at least call for an inquest, but here none is held, no matter what are the circumstances. (To be correct I recall one, which the District Attorney had made in a case of murder.) It is thought sufficient to call in the undertaker and give the victim a proper burial. Illegitimate births are of frequent occurrence, nothing being thought of them if the constable succeeds in marrying the parents a few days before the child is born; if not, the mother is simply spoken of as having been unlucky, and has no stain in the eyes of future suitors for her hand.

The district flourishes in churches, so many in fact that they all have small attendance and the ministers are half-starved. The country about is a famous summer resort, and is filled with thousands of educated visitors each year. I have not made the colors so dark as I might. I ask the profession if some legislative action should not be taken with a view to requiring at least the registration of births and deaths and the investigation of all fatal cases in which a physician has not been in attendance?

BACTERIOLOGIC REPORT.

A BACTERIOLOGIC STUDY OF OYSTERS, WITH SPECIAL REFERENCE TO THEM AS A SOURCE OF TYPHOID INFECTION.

BY CHARLES J. FOOTE,
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AT the suggestion of Dr. C. A. Lindsley, Secretary of the Connecticut State Board of Health, I have made some bacteriologic experiments with oysters and with the water in which they grow, in order to determine how far the bacteriologic evidence supports the idea that typhoid fever may be communicated by oysters.

The conditions favoring the communication of typhoid fever by oysters require that the Bacillus typhi abdominalis should live a few hours at least in the water in which the oysters grow, and that, having been received between the shells of the oyster, it should live in the substance or juices of the oyster until such a time as this is eaten. In this locality this time would be from a few hours to four or five days, as it is the custom to "drink" the oysters in the river after bringing them in from the sound, for a few hours or days before opening them, in order to clean them, lessen their salty taste, and fatten them.

The work of other investigators on the vitality of the B. typhi abdominalis in salt water is not quite applicable to the instance under discussion, inasmuch as the temperature of the water is not given nor the amount of salt; and indeed, in some instances, the experiments were made with a sterile salt-solution. Freytag found that the B. typhi abdominalis would live in concentrated salt-solution five months.[1] Giaxa detected it in unsterilized sea-water after nine days from the date of infection, in sterilized water after twenty-five days.[2]

My experiments were made to find how long the B. typhi abdominalis would live in water having the same percentage of salt, the same temperature, and the same bacteria as the water in which the oysters were planted.

On December 20th a liter of water was taken from the river X, at low tide, in a sterilized flask directly over the oyster-beds. The flask was carried immediately to the laboratory, and ten c.c. of a bouillon-culture of the B. typhi abdominalis were emptied into it. The flask was then put in a wooden box outside of the window of the laboratory. Thus the temperature of the water approximated at least that of the river. The mean daily temperature of the weather during the experiment was taken from the weather-reports, and was as follows:

December 21st, 36° F.; 22d, 42° F.; 23d, 24° F.; 24th, 24° F.; 25th, 38° F.; 26th, 24° F.; 27th, 25° F.; 28th, 10° F.; 29th, 9° F.; 30th, 18° F.; 31st, 24° F.

For the first few days the water was not frozen, protected as it was in a wooden box, but during the last four days of the experiment there was a large cake of ice in the flask, and on December 30th the water was completely frozen and the flask cracked.

The last plate from the ice, made on December 31st, shows the vitality of the B. typhi abdominalis in frozen brackish water.

Agar plates were made from the flask of water on December 23d, December 27th, and December 31st. The plates were kept at 37° C. Check-plates were made also from a bottle of water from the river X, which was taken at the same time as the other sample, and was not infected with the B. typhi abdominalis. In every case $\frac{1}{10}$ c.c. of water was added to each plate, and in all cases in which I have stated that the B. typhi abdominalis was present cultures were made, from one or more colonies of each agar plate, on potato and in litmus milk, thus verifying the diagnosis.

The results were as follows:

Number of Colonies in $\frac{1}{10}$ c.c. of Water.

Plate of 23d, of infected water,	Innumerable cols. of B. typh. abd.
Check-plate of non-infected water,	2 or 3 cols., none resembling B. typh.
Plate of 27th, of infected water,	Innumerable cols. of B. typh. abd.
Plate of 31st, of infected water,	Innumerable cols. of B. typh. abd.

An estimation of the chlorin in the infected water was made, and there was found to be 0.1 per cent. chlorin or 0.15 per cent. salt.[3]

[1] Zeitschrift für Hygiene, 1890.
[2] Zeitschrift für Hygiene, Bd. vi, p. 162.
[3] For this analysis I am indebted to Prof. H. E. Smith, of the Yale Medical School.

On January 15th two more samples of water were taken from the river X in sterilized liter flasks.[1] To one of the samples 10 c.c. of a bouillon-culture of the B. typhi abdominalis were added; the other sample was used to make check-plates.

The flasks were kept at the temperature of the laboratory, as it was desirable to prolong the experiments, and it was feared that if exposed to the outdoor temperature the water would freeze and the flasks crack. The temperature of the laboratory during the experiment ranged from 60° F. to 70° F.

Plates were made at the dates recorded, with the following results.

Water of river X—second sample—$\frac{1}{10}$ c.c. in each plate—water infected on January 15th.

Number of Colonies in $\frac{1}{10}$ c.c.

	Water infected with B. typh. abd.	Non-infected water.
Plates of Jan. 16th,	Innumerable cols. of B. typh. abd.	4 cols; none of B. typh. abd.
Plates of Jan. 18th,	Innumerable cols. of B. typh. abd.	4 cols.; none of B. typh. abd.
Plates of Jan. 21st,	Innumerable cols. of B. typh. abd.	5 cols; none of B. typh. abd.
Plates of Jan. 23d,	Innumerable cols. of B. typh. abd.	2 cols.; none of B. typh. abd.
Plates of Jan. 28th,	130 cols. of B. typh. abd.	3 cols.; none of B. typh. abd.
Plates of Feb. 1st,	About 10 cols. of B. typh. abd.; many other kinds growing on plate.	Sterile.
Plates of Feb. 5th,	B. typh. abd. not discovered; plate overgrown with other kinds of bacteria.	

We may conclude from these experiments that even in extremely cold weather the B. typhi abdominalis will live in unsterilized salt or brackish water eight days at least, while in warmer water it rapidly diminishes in number after the first week, and cannot be detected in the water after three weeks.

To determine whether the B. typhi abdominalis will live and multiply in oysters, it is necessary, as a preliminary step, to find out what bacteria, if any, are found in oysters, and whether any of them resemble the B. typhi abdominalis. To determine this point some oysters were taken from the river X on November 27th, at low tide, scrubbed in city water, rinsed with sterilized water, dried on a clean towel, and opened with a sterilized knife.

The juice surrounding the oyster was drawn off with a sterilized pipet, and gelatin plates were made, each one containing one drop of the juice. Tubes of Paretti's solution were also infected with five drops each of oyster-juice. A sterilized platinum loop was plunged into the liver and stomach, twisted around, drawn out and rubbed over slant tubes of agar.

The agar tubes and Paretti's solution were incubated at 37° C., the gelatin plates at about 22° C.

The oysters used in this experiment were numbered 1, 2, 3, 4, and 5.

[1] An analysis of this water showed it to contain 0.06 per cent. of salt.

The results were as follows:

Tubes of Paretti's Solution.

Oyster 1	Cloudy.
" 2	"
" 3	"
" 4	"
" 5	"

Gelatin plates were made from each of the Paretti cultures, but no bacteria resembling in their growth on gelatin the B. typhi abdominalis were found. Most of the bacteria developing in Paretti's solution from oyster-juice are anaërobic and are nearly all micrococci, so that they may be readily distinguished from the B. typhi abdominalis microscopically without making cultures on gelatin.

The following is a brief description of the kinds of bacteria found in oyster-juice which grow in Paretti's solution:

(*a*) In gelatin tube-cultures this presents almost no surface-growth, but shows as a white streak along the line of puncture. There is no liquefaction, and the growth is very slow at 72° F. On potato it forms an invisible growth.

Grown in peptone-solution it gives no indol-reaction. It turns litmus milk slightly acid. It is a micrococcus, sometimes arranged in strings like a streptococcus. It is harmless when injected into the peritoneal cavity of white rats.

(*b*) This bacterium grows dense, white, solid colonies on gelatin plates. The colonies are fairly round, but the outline somewhat dentated. After one week the colonies are nearly one-quarter of an inch in diameter. In gelatin tubes there is a thick, white, pasty surface-growth, with a good growth along the line of puncture. On potato it has a yellow growth. Under the microscope it shows large fat oval cocci.

(*c*) On gelatin plates the colonies of this bacterium are small, round and white, of slow growth. There is no liquefaction. In gelatin tube-cultures there is no surface-growth, and only a few small yellow globules along the line of puncture. There is no change in litmus milk—no indol-reaction is produced.

The microscope shows it to be a micrococcus.

(*d*) In gelatin plates the colonies after one week are minute specks. Under a one-half inch objective they appear as little, round, yellow drops.

On potato at 37° C. there is a white growth after twenty-four hours.

In gelatin tube-cultures there are little white specks along the line of puncture, with almost no superficial growth. After some days the gelatin becomes liquefied at the surface.

The microscope shows medium-sized micrococci.

Gelatin plates made with one drop of oyster-juice gave the following result:

Oyster 1. Large number of small, white colonies.
" 2. Innumerable, mostly liquefying bacteria.
" 3. Innumerable.
" 4. A few colonies.
" 5. Innumerable.

A few days later another experiment was made to determine more accurately the number of bacteria and the kinds found in oyster-juice. The gelatin plates

were made with $\frac{1}{10}$ c.c. of juice in each plate. Nine oysters were examined.

Oysters.	Number of bacteria in $\frac{1}{20}$ c.c. of juice.	Number of varieties noticed.	Number of liquefying in each plate.	Kinds recognized.
1	18	5	2	
2	18	5	...	Many B. fluorescens liquefaciens.
3	12	5	...	B. gasoformans.
4	39	...	3	
5	43	7	5	B. fluorescens liquefaciens.
6	48	6	4	
7	12	4	2	
8	84	10	11	
9	34	...	9	

At the same time agar plates were made with $\frac{1}{10}$ c.c. juice of the same oysters, and the plates were incubated at 37° C.

Agar Plates of Oyster-juice.

	Number of colonies in $\frac{1}{20}$ c.c. of juice growing at 37° C.
Oyster 1	1
" 2	3
" 3	Sterile
" 4	Many brown colonies
" 5	8
" 6	2
" 7	2
" 8	1
" 9	Many brown colonies

To determine whether the contents of the stomach contained any bacteria, the oyster was cut open with a sterilized knife and the surface of the stomach scraped with a loop of platinum; this was then drawn over a slant tube of agar. The loop of platinum was also plunged into the liver-substance, twisted around, drawn out, and rubbed over the surface of a slant tube of agar.

Agar Tubes made by drawing a Loop of the Contents of the Stomach over the Surface of the Agar. Tubes incubated at 37° C., Bacteria in one loop growing at 37° C.

Oyster 1	Sterile.
" 2	Sterile.
" 3	Sterile.
" 4	2 cols., not B. typh. abd.
" 5	1 col., B. megaterium.

A second experiment resulted as follows:

	Bacteria in loop of stomach-contents.	Bacteria in loop of liver-substance.
Oysters 1	1 col.	Sterile
" 2	Sterile	Sterile
" 3	Sterile	Sterile
" 4	Sterile	Sterile
" 5	A few colonies	A few colonies
" 6	Sterile	Sterile
" 7	Sterile	Sterile
" 8	Sterile	Sterile
" 9	A few colonies	Sterile

From these experiments we see that the number of bacteria in one cubic centimeter of oyster-juice which grow in gelatin range from 240 to 1680. The average number is about 684.

It may be of some interest to compare the number in the oyster-juice with the number in the water taken directly over where the oysters were growing. Samples of water taken directly over the oyster-beds and secured at the same time that the oysters were taken out of the water contained on an average 9520 bacteria in a cubic centimeter. Comparing this number with the number in the juice of the oyster we find that there are 8836 more bacteria in a cubic centimeter of the water surrounding the oyster than in the juice of the oyster. This indicates either that the juice of the oyster is destructive to certain bacteria or that the water undergoes a certain amount of filtration and purification in passing between the shells of the oyster.

The kinds of bacteria growing at 22° C. from the juice of the oyster are in most instances the same as those found in the water in which the oysters grow. Thus we find, among the more common varieties present, the B. fluorescens liquefaciens and the B. gasoformans. In one instance the B. megaterium was isolated from the stomach of an oyster. This bacterium, as is well known, is found on cabbage-leaves. There is a kind of seaweed, called by oystermen sea-cabbage, which is abundant around oyster-beds and on oysters. Whether this explains the presence of the B. megaterium in oysters I do not know.

Most of the bacteria found in the juice of the oyster do not grow at 37° C. By reference to the table of agar plates made from oyster-juice we see that there are rarely over 160 bacteria in one cubic centimeter of juice which grow at 37° C., and often there are not more than 20.

The examination of the stomach and liver of oysters shows in many cases that they are free from bacteria which grow at 37° C. The liver-substance was free in eight oysters out of nine, while the stomach was free from them in six out of nine.

I have studied chiefly the bacteria in oysters which grow at 37° C., as most growing at a lower temperature may be ruled out as a cause of disease. The bacteria from oysters growing in Paretti's solution I find, as a rule, quite different from those growing on agar plates. In the former case the bacteria are mostly anaërobic micrococci, while in the latter case they are aërobic bacilli.

Some of those growing in Paretti's solution, as already stated, resemble the B. typhi abdominalis by their invisible growth on potato, but are easily distinguished microscopically.

Two varieties isolated from agar plates liquefy gelatin rapidly, and are thus distinguished from the B. typhi abdominalis.

Three non-liquefying kinds were isolated from the agar plates, which in the early stages of growth on gelatin somewhat resembled the B. typhi abdominalis, but were easily distinguished from it by their growth on potato and in litmus milk.

Inasmuch as river-oysters, as a rule, are more exposed to contamination from sewage than oysters which are taken four or five miles away from any such source of contamination, from deep water, it seemed of interest to compare their relative infectiousness.

To do this bouillon-cultures were made by putting a

half centimeter of the juice of an oyster into bouillon and allowing it to develop at a temperature of 37° C. for forty-eight hours. One cubic centimeter of this culture was then injected into the peritoneal cavity of a white rat.

Bouillon-cultures were thus made from seven river-oysters and from five oysters taken three miles out in Long Island Sound, south of the New Haven light-house. One cubic centimeter of each culture was then injected into the peritoneal cavity of white rats. After one month all of the five rats injected with bouillon-cultures from the sound-oysters were living and well; of the seven rats injected with bouillon-cultures of river-oysters five were living and well, but two had died.

One died three days after inoculation, the other six days after inoculation. From the blood and the liver of one of the rats a bacterium was isolated showing a white, round colony on agar plates, in litmus milk producing an intensely acid reaction, and producing a yellow slimy growth on potato.

From the blood, liver, and spleen of the other rat a bacterium was isolated, producing a brown growth on agar, with a green fluorescence. These experiments, as far as they go, seem to show a greater infectiousness of river-oysters.

It is an easy matter to determine the fact that the B. typhi abdominalis will live in oysters, but very difficult to tell whether it will propagate in them. A numerical estimation cannot be made of the number of bacteria in an oyster, even though we may know how many were introduced into it. It is clear, therefore, that conclusions in regard to number can be only very inexact.

My method consisted in cleaning a number of oysters and then injecting one cubic centimeter of a bouillon-culture of the B. typhi abdominalis with a Koch syringe between the edges of the shells. In this way a pile of oysters were infected. The oysters were kept in a cool room, the temperature ranging from 50° to 65° F. The vitality of the oysters was not apparently impaired by the operation, for, when opened subsequently, most of them appeared fresh.

Every few days one of the oysters was opened and agar plates were made from one-half a cubic centimeter of juice. The surface of the oyster over the stomach was then scorched with a red-hot iron, and the stomach was opened with a sterilized knife. A loop of the stomach contents was then drawn over a slant tube of agar. The plates and tubes were kept at 37° C.

In this way it was thought that if the B. typhi abdominalis multiplied, the agar plates and slant tubes for each succeeding oyster would show a greater number of the B. typhi abdominalis than the oysters opened before it; while if the B. abdominalis died, the juice of succeeding oysters would show a quick decrease in number.

Occasionally an oyster was opened which had lain in the same room with the other oysters, but had not been infected with the B. typhi abdominalis. Plates were made from the juice and slant tubes from the stomach, as a check on the method.

As a preliminary experiment, some of the juice of a large oyster was drawn off with a sterile pipet, put into a sterilized test-tube, and infected with a loop of a culture of the B. typhi abdominalis.

Every few days agar plates were made with two loops of this juice. The tube of juice was kept at a temperature of between 60° F. and 70° F.

The results were as follows:

Oyster opened and juice drawn off on December 21st.

	Number of colonies in two loops of juice after infection.	Number of colonies in two loops of juice before infection.
Plate of Dec. 21st . .	Innumerable colonies of B. typh. abd.	Sterile.
" Dec. 23d . .	" " " "	
" Dec 27th . .	" " " "	
" Dec. 31st . .	About 100 cols. of B. typh. abd.	
" Jan. 10th . .	One or two cols. of B. typh. abd.; plate overgrown with other bacteria.	

The following is the record of results with living oysters:

Oysters Injected with Bouillon-culture of B. typh. abd. on January 16th.

Oyster A. Opened January 17th.
½ c.c. juice contains innumerable cols. of B. typh. abd.
Stomach, a few cols. of B. typh. abd.

Oyster B. Opened January 19th.
½ c.c. juice contains innumerable cols. of B. typh. abd.
Stomach, 50 or 60 cols. of B. typh. abd.

Oyster C. Opened January 22d.
½ c.c. juice contains 200 cols. of B. typh. abd.
Stomach, 2 or 3 cols. of B. typh. abd.

Oyster D. Opened January 24th.
½ c.c. juice contains innumerable cols. of B. typh. abd.
Stomach, about 14 cols. of B. typh. abd.

Oyster E. Opened January 28th.
½ c.c. juice contains innumerable cols. of B. typh. abd.
Stomach, sterile.

Oyster F. Opened January 28th. Check from pile not inoculated with B. typh. abd.
½ c.c. juice, sterile.
Stomach, sterile.

Oyster G. Opened February 2d.
½ c.c. juice contains about 60 colonies of B. typh. abd.
Stomach, sterile.

Oyster H. Opened February 13th.
½ c.c. juice contains about 40 cols. of B. typh. abd.
Stomach, 3 cols. of B. typh. abd.

In stating the number of colonies of the B. typhi abdominalis an exact number cannot be given, as there may have been in some instances other kinds of bacteria present which were mistaken for the B. typhi abdominalis. In general, however, the number is approximately correct, as cultures were made from some of the colonies of every plate, in litmus milk and on potato, and the mere plate appearance was not alone relied upon to determine whether I was dealing with the B. typhi abdominalis or some interloper.

These experiments do not throw very much light on the question of the multiplication of the B. typhi abdominalis in oysters. They do, however, seem to show that if multiplication does occur it takes place within the first two weeks, and that after that there is a progressive decrease in the number of the B. typhi abdominalis

found in oysters, but that it may be found even after thirty days from the date of infection. They further show that the B. typhi abdominalis not only lives in the juice, but penetrates into the stomach and lives there for some time. In fact the B. typhi abdominalis lives longer in the juice and stomach of the oyster than it does in the water in which the oyster grows.

CLINICAL MEMORANDA.

VARICELLA COMPLICATED BY GANGRENE OF THE SCROTUM.[1]

BY CHARLES D. SPIVAK, M.D.,
OF PHILADELPHIA.

JONATHAN HUTCHINSON was the first to draw the attention of the medical profession to a complication of varicella characterized by the development of gangrene of the skin and deeper tissues at the the site of the eruption. Since his memorable article on "Gangrenous Eruption in Connection with Vaccination and Chickenpox,"[2] similar cases have been reported from England by Abercrombie,[3] Martin,[4] Howard,[5] Jamieson,[6] Andrew,[7] Bowlby,[8] Payne,[9] Crocker,[10] and Stanifooth.[11] The United States and Germany are represented in the literature on the subject by two authors each: the first by Woodward[12] and A. F. Büchler,[13] and the second by Demme[14] and Cassel.[15] Whether the children of other nationalities are exempt from this complication, or the cases have not been reported, I do not undertake to decide. So far as my researches go I have been unable to find a single case in French, Italian, Russian, or Spanish medical literature. The rarity of the complication in general, and the exceptional features of the case that came under my treatment in particular, seem to justify me in reporting it.

The patient was a boy of Russian parentage, aged two years, whose father and mother are healthy, with no scrofula or tuberculosis in the family, and with five other children all well and healthy. He had had no serious illness previous to the attack of chickenpox. As I saw the case for the first time only on the eighth day of the disease I have to rely upon the data furnished by the parents, who proved to be tolerably good observers and quite reliable. On November 25, 1894, the chickenpox was noticed for the first time; on the 26th the child became restless and had fever; on the 27th the fever increased, the child was delirious, and the scrotum became red and swollen. This state continued until the 30th, when the swelling extended to the left inguinal region; a black spot the size of a pin-head had appeared on the left side of the scrotum, and soon several others formed a circle around the original one and coalesced. On the following day another black spot appeared a little further to the left on the scrotum, and "before one had time to look at it," as the parents expressed themselves, the process of deep ulceration and "eating up" commenced. On December 3d I saw the child for the first time. It was well preserved and plump, as seen by the photograph and by its appearance now, and somewhat

irritable. The penis, the scrotum, and the left inguinal region were very much swollen and tender. The left side of the scrotum was covered by blackish, muddy-looking crusts and detritus covering about two-thirds of it and passing over the raphe to the right side. The smell was very offensive. The crusts and detritus were carefully removed and the tunica albuginea of the left testicle was exposed to view, thus showing that the gangrenous process destroyed not alone the integument but also the dartos, the external, cremasteric, and internal fascias, and the tunica vaginalis. There was a distinct areola around the ulcer. The presence of pus in the inguinal region was easily demonstrated by fluctuation and also by the oozing from a very small spontaneous opening found about half an inch from the scrotum. The temperature was 101.6°, the pulse 110. Pressure over the bubo gave pain, but the handling of the ulcer was almost painless. I washed the parts with mercuric chlorid and applied an iodoform-gauze dressing and a bandage. On the following day, when the bandage was removed, the ulcer was found to present a somewhat better appearance, but was still angry-looking and covered with pus from the oozing aperture. The child was anesthetized by Dr. Rachel Skidelsky, and introducing the grooved director through the opening I laid open the inguinal region throughout its length, as shown in the photograph. I cleansed the wound thoroughly and packed it with iodoform-gauze. (The photograph was taken at this juncture, and shows the incision with the packing in it; the left testicle exposed and many spots of dried-up vesicles all over the body.) The ulcer was

[1] Read before the Philadelphia County Medical Society, February 13, 1895.

[2] Med.-Chir. Trans., vol. lxv, p. 1.

[3] Trans. Path. Soc. Lond., vol. xxxi, p. 333.

[4] Brit. Med. Journal, 1881, vol. ii, p. 803.

[5] Ibid., 1883, vol. i, p. 904.

[6] Trans. Med. Soc. Edin., 1886–87, vol. vi.

[7] Clinical Record, 1890, vol. i, p. 63, and Trans. Clin. Soc. Lond., vol. xxiii, p. 79.

[8] Lancet, London, 1885, vol. i, p. 987.

[9] Trans. Path. Soc. Lond., vol. xxxvi, p. 471.

[10] Med.-Chir. Trans., vol. lxx, p. 397; Lancet, 1885, i, and Roy. Med. Chir. Soc., 1885, p. 282.

[11] Med. Press and Circular, London, 1890, vol. xlix, p. 37.

[12] Pacific Med. and Surg. Journal, 1889, vol. xxxii, p. 197.

[13] Amer. Journ. Med. Sci., 1889, vol. xcviii, p. 265.

[14] Wiener med. Blätter, 1892, vol. xv, p. 37; Klin. Mitth. aus d. Geb. d. Kind., 1891, 38.

[15] Archiv für Kinderkrankheiten, 1894, vol. xvii, p. 371.

dressed with mercuric-chlorid gauze saturated with hydrogen dioxid, and a T-bandage applied. Of course, the ulcer required a good deal of trimming for the removal of dead tissue. I ordered two grains of quinin to be given in the evening and two grains in the morning. It was then that I noticed that three children in the same family had varicella in different stages of development. There were no complications in the other cases.

On the following day the temperature fell to 99.2°; the child slept almost the whole night, the first time since it had been sick; the ulcer and wound were clean and the gangrenous process checked. The local treatment was continued the same during the entire period of the regeneration of the scrotum, which took about thirty-five days. The repair is complete and admirable, leaving only a star-shaped cicatrix. No internal treatment was needed after the third day.

Through the kindness of Dr. J. S. Billings, Deputy Surgeon-General U. S. Army, I was enabled to trace the literature on the subject antedating the report of Hutchinson. Besides the mention by Hutchinson of two cases in Guy's Hospital Museum, which were named varicella escharotica, and the case of Stokes described in 1807 in his *Dublin and Physical Essays on Eruptive Diseases of Children*, which he named pemphigus gangrænosa, and which, according to Hutchinson, are to be regarded as cases of varicella gangrænosa, the following cases were reported and minutely described by their respective authors as varicella complicated by gangrene: Dr. Humphrey Storer,[1] Steinthal,[2] Loewenhardt,[3] Dr. Frederick J. Brown,[4] of Rochester, and Dela Harpe.[5]

539 PINE STREET.

TEN CONSECUTIVE CASES OF DIPHTHERIA TREATED WITH THE ANTITOXIN.

BY CHARLES S. SMITH, M.D.,
OF ELROY, WIS.

I WAS called, February 4, 1895, to see Mrs. V., aged twenty-four years, who was suffering with sore-throat, headache, fever, and general malaise. On examination I found the surface of both tonsils covered with diphtheric deposit. No antitoxin was used in this case, as there was none to be obtained. The usual remedies, swabbing, spraying, etc., used. After about ten days the patient was convalescing and made an uneventful recovery.

CASE I.—Six days after Mrs. V. was taken sick her eldest son Philip, aged four years, developed diphtheria, with a thick deposit over both tonsils. The pulse was 120, the temperature 99°. There was used in this case Behring's antitoxin, No. 2, ℥x. The next day the pulse was 112, the temperature normal, and the deposit on the tonsils began to peel off. Antitoxin, ℥xx, was used. On the third day the patient was convalescing and practically well.

CASE II.—Frank V., of the same family as the preceding case, aged two years, when seen had been ill thirty-six hours. There was a diphtheric deposit on both tonsils. The pulse was 152, the temperature 99°. Antitoxin No. 2, ℥x, was injected, and twenty-four hours later the pulse was 132, the temperature normal; the countenance and general aspect of the child improved. There still remained patches in the throat, and ℥xv more of antitoxin were injected. On the third day the child was practically well.

CASE III.—Mary S., aged sixteen years, had been sick one week with sore-throat when I was called. On examination I found the whole surface of both tonsils leading into the nasal cavities covered with diphtheric deposit, from which emanated an odor so offensive that one could hardly remain in the room; ℥40 of Behring's antitoxin, No. 2, were injected. I also used an antiseptic spray, together with quinin and morphin, to give rest. On February 13th, twenty-four hours afterward, ℥30 of antitoxin No. 2 were injected. (I should have used more, but this was all I had at the time.) On February 17th the patient was much improved, and there was exfoliation of large amounts of membrane. (A large mass of membrane was placed in a bottle and sent to Dr. C. E. Booth, Low Moor, Va., for microscopic examination. He reported that the Loeffler bacilli were present.)

Having obtained a new supply of antitoxin No. 1 I gave ℥40 on February 19th; the patient convalescing, ℥30 more were injected. On February 20th the throat was entirely clean, the pulse 100, the temperature 98.5°. The patient was practically well, with the exception of paralysis of the throat, difficult articulation, etc. After seven days' treatment the patient had so far recovered as to be able to care for others of the family who were ill.

CASE IV.—Otto N., aged nine years, was of the same family as the preceding case. When seen he had been ill twenty-four hours, with headache, sore-throat, etc. The pulse was 120, the temperature 101°; ℥60 of antitoxin No. 1 were injected. On the third day the pulse was 116, the temperature 98.5°. Antitoxin, ℥40, was again used. On the fourth day of the sickness the pulse was 80, the temperature 98.5°, the throat was clean, and the patient was about the house.

CASE V.—On February 18th, Bertha M., aged three years, had been sick four days before I was called. On examination I found the tonsils and uvula covered with diphtheric deposit. The mother and sister in the same family were also sick with diphtheria. I used ℥60 antitoxin on February 19th, ℥40 on February 20th, and ℥30 February 23d. The throat now became clean and the child was rapidly convalescing. This was practically all the treatment used, as the child was unruly and hard to manage; therefore, any local or constitutional treatment was impossible. The membrane was also examined in this case, and diphtheria-bacilli found.

CASE VI.—On February 19th I was called to see a German family, five of whom had been sick for twenty-four hours with diphtheria. Antitoxin was used in all these cases, and within five days all were as well as ever.

[1] Boston Med. and Surg. Reporter, 1828, vol. i, p. 212.
[2] Analekten, 1843, pp. 1–43.
[3] Rheinische Monat. für Prakt. Aertz., Köln, 1850.
[4] Brit. Med. Journ., 1863, vol. ii, p. 420.
[5] Bull. Soc. Méd. de la Suisse Rom., 1869.

Dr. Robert Bruce Mowrey, the oldest physician in Allegheny County, died on March 14th, at Pittsburg, at the age of eighty-one years. He was graduated from Jefferson Medical College in 1836. He was a member of the American Medical Association and of the Medical Society of the State of Pennsylvania, and an honorary member of the Medical Society of the State of California. He was one of the founders of the Allegheny General Hospital.

CLINICAL REPORT OF SEVEN CASES OF VARICOCELE TREATED BY INCISION, DELIGATION OF VEINS, AND SHORTENING OF THE SCROTUM.[1]

BY W. E. PARKER, M.D.,
OF NEW ORLEANS.

I HEREWITH present the histories of seven cases of varicocele that I have treated by a method that is simple, that does not require any complicated instruments, and that has been very satisfactory in its results. The operation is performed as follows:

An incision, varying in length according to the size of the varicocele, is made directly over the mass of veins. The varicose veins are then ligated in two places, removed, and the stumps brought together. The ends of the incision are then brought together, and the wound changed from a longitudinal to a transverse one. The incision should be sufficiently long to bring the affected side of the scrotum well above the other. There is a slight redundancy of tissue at the ends of the wound when closed, but this in time does not show so markedly as at first, although still present in all of my cases. The operation is easily performed, and requires but few instruments; one can see what he is doing, and there is no troublesome hemorrhage. Fearing that the shortening of the scrotum might not last, I had intended to remove with a pair of curved scissors an elliptical piece of the scrotum and then sew the wound transversely in my future cases, but have not recently had a case that required operation, and my results have been so satisfactory with the method I have used that I think I shall continue to use it. No drainage-tube was used in any of these cases, and all recovered, with union by first intention and without any complication. Briefly, the histories of my cases are as follows:

CASE I.—G. B., a laborer, aged thirty-two years, white, came to the out-door clinic of the Charity Hospital May 14, 1894. He has had dull pain in the left testicle and groin for the past year, which has increased in the past three months. He masturbated in boyhood, but not since. He is constipated. He had epididymitis three years ago. On examination a large varicocele was found, the left testicle hanging much lower than the right. He was admitted to the ward, and that night given ℥ss magnesium sulphat, and the parts were shaved and prepared for operation, which was performed the next day. The wound healed kindly, and the patient was discharged, cured, June 3d. I saw this patient five months after the operation. He is still well, and the left testicle still hangs well above the right.

CASE II.—Ed. W., a negro, aged thirty-four years, a laborer, came under observation June 19th, having a large varicocele of the left side. He had orchitis five years ago, and suffers from constipation. He was operated upon on June 20th. The wound healed by first intention, and the patient was discharged, cured, July 5th. This case especially interested me on account of his race. In a service of three years in the negro male surgical service, and one year in the male genito-urinary clinic of the Charity Hospital, where about two-thousand cases per annum are treated, I have seen but two cases of varicocele in the negro. I have not seen this man since he was discharged from the hospital.

CASE III.—Mr. T., aged twenty-nine years, a clerk, of German descent, is an epileptic, and believes that his varicocele causes the convulsions. The varicocele is rather large. He was operated upon on June 2d. The wound healed kindly and under one dressing. I saw him in the early part of October. The varicocele was well, and the left side of the scrotum was still higher than the right. He thinks the convulsions are less frequent and less severe.

CASE IV.—Albert H., aged twenty-six years, a laborer, has had epididymitis and is constipated. He noticed the varicocele five or six years ago, but it did not trouble him until the past year. He was operated upon on June 27th. The wound healed nicely, and he was discharged July 10th. He returned the latter part of September with chancroids, the varicocele well, and the left side of the scrotum still higher than the right.

CASE V.—I saw this man, Mr. J., in consultation with Dr. R. DeMontluzin. The operation was performed on July 5th. The man was discharged July 15th. He had a large varicocele, which he thought interfered with his sexual powers. Dr. DeM. tells me that he is now perfectly well, and that the left side of the scrotum is still higher than the right.

CASES VI and VII were both clerks, one nineteen and the other twenty-one years old. Both were of nervous temperament, but there was nothing else in their history to show the cause of the varicocele. Both were operated upon in July, and the result up to date is satisfactory.

Such is the history of my cases of varicocele treated in this way. I like the method of changing the wound from a longitudinal to a transverse one, because it shortens the scrotal hemorrhage or bruising. Should the scrotum become lower on the left side than on the right I would in the future remove the elliptical piece, as I have suggested.

I think that the milder cases of varicocele should be treated with a suspensory bandage, with proper regulation of diet, exercise, and the bowels. I think a varicocele should be operated upon:

1. If it is of large size. 2. If it is very painful. 3. If there be marked nervous symptoms present. 4. If the testicle is atrophying. 5. If the varicocele is increasing rapidly. 6. If it is an obstacle to entering public service. 7. If on account of the patient's occupation a suspensory bandage is troublesome and he desires an operation.

I do not claim that this method of shortening the scrotum, by converting a longitudinal incision into a transverse one, is new, but I have never heard of anyone else using it.

[1] Read at the meeting of the Southern Surgical and Gynecological Association, Charleston, November 15, 1894.

MEDICAL PROGRESS.

Abscess of the Left Occipital Lobe Causing Object-blindness and Word-blindness.—CAMPBELL (*Liverpool Medico-Chirurgical Journal*, 1895, No. 28, p. 52) has reported the case of a man, forty-three years old, whose occupation rendered him liable to exposure in all kinds of weather and entailed irregularity of meals. There had been deafness in the left ear for thirty years, and for ten years a discharge from this ear. Examination disclosed

perforation of the tympanic membrane with granulations. For three or four months there had occurred attacks of giddiness, and on one occasion the man became suddenly confused, lost his feet, and was completely aphasic. Consciousness was not lost, and the man was soon able to go on his way. On the following morning the power of speech had returned and all locomotor disturbances had disappeared. When seen a month later the man was in a state of mental depression and complained of a sense of oppression at the vertex. He presented object-blindness (inability to recognize objects), word-blindness (inability to interpret printed symbols), paralexia (misuse of words in reading), and paragraphia (the misspelling of words and the incorrect arrangement of their letters). Occasionally words were transposed in ordinary conversation. There was no word-deafness.

While under observation the man had several seizures similar to that already described, always becoming absolutely aphasic and confused for from twenty to thirty minutes after the attack, and occasionally losing the power of the right arm and leg, which during the seizure were convulsed. He began to complain of left-sided occipital headache, which became constant and intense, lost his memory, acquired delusions of persecution and visual hallucinations, refused food, and became violent toward his wife. Ophthalmoscopic examination disclosed marked double optic neuritis with hemorrhages. The right half of the visual field was limited. There existed homonymous hemianopsia. There was no absolute color-blindness, although there was uncertainty in distinguishing various shades of the same color. The right pupil was slightly the larger; both reacted to light and in accommodation. The knee-jerks became exaggerated. The man grew progressively worse, and toward the end of his illness there was some general diminution of sensation. Finally he became stuporose, and ten days before death, which resulted from respiratory failure, rotatory nystagmus in all directions, ataxia, and special weakness of the trunk-muscles were observed.

Upon post-mortem examination the inner surface of the calvarium yielded a prickly sensation to the tip of the finger, from the presence of numerous extremely delicate osseous spicules. The left hemisphere was considerably larger than the right, and was obviously bulged in the occipital segment. This bulging began internally opposite the anterior margin of the precuneus; it flattened all the sulci, particularly the parieto-occipital, from within outward and extended backward to the tip of the occipital lobe, which was rounded instead of being pointed. A corresponding part of the outer surface of the hemisphere was also bulged. The surface of the hemispheres was of pale color, but over the swollen left occipital segment it was distinctly reddened and betokened subjacent inflammation.

On horizontal section, the swelling was found to be due to a centrally situated abscess of the size of a turkey's egg. The abscess was round in shape, and, from the thickness and roughness of its walls, presented an encapsulated appearance. The surface-tissues covering the abscess, though unbroken, were much thinned and undermined. The nearest point to the surface which the abscess reached was at the parieto-occipital fissure. The white matter surrounding the abscess was softened and inflamed, and this inflammatory condition encroached on the center of the hippocampal and uncinate gyri, the subcallosal fasciculus, the posterior pillar of the fornix, the optic thalamus, and the tegmentum cruris of the left side. The posterior horn of the lateral ventricle was not broken through. The ventricular fluid was diminished in amount, but of normal quality. The upper surface of the cerebellum was flattened, softened, and congested. The olfactory bulbs were slightly flattened. The lungs presented some patches of lobular pneumonia, but the remaining organs were healthy.

On microscopic examination of the pons small hemorrhages were found in the region of the red nuclei. There was some descending degeneration in the left lemniscus and posterior longitudinal bundle, probably in consequence of the softening of the left optic thalamus. Some degenerative fibers were visible in the left and right superior and middle cerebellar peduncles and in the left pyramidal bundles; the latter were followed down the spinal cord. In the medulla some degeneration was found in the restiform bodies. This could be traced into the cuneate nuclei, thence into the funiculi cuneati, and thence into the posterior external columns of the spinal cord, down which it could be followed as far as the point of origin of the ninth dorsal pair of nerve-roots. Some fibers in the anterior and posterior nerve-roots were degenerated, but definite degenerative changes in the cornual ganglion-cells could not be found.

On the Measurement of Simple Reaction-time for Sight, Hearing, and Touch.—At the last meeting of the British Association for the Advancement of Science, Professor W. RUTHERFORD, M.D., F.R.S., presented a communication detailing that in observations made on eight intelligent, healthy men, varying in age from nineteen to sixty-two years, the reaction-time for sight varied from 0.1662 second to 0.2202 second, and was mostly between 0.20 second and 0.22 second. The reaction-time for hearing varied from 0.1448 second to 0.1930 second, and was mostly between 0.15 second and 0.16 second. The reaction-time for touch varied from 0.1416 second to 0.1906 second in the different cases. The shortest touch reaction-time is that following stimulation of the cheek; it varied from 0.141 second to 0.157 second. When the skin of a finger was stimulated the reaction-time varied from 0.142 second to 0.190 second, but was mostly from 0.15 second to 0.18 second in the different cases; there was no evident relation between the age and the length of reaction-time in the cases under observation. In a limb the reaction-time is generally longer the greater the length of sensory nerve traversed by the impulse; but there may be considerable variations in the reaction-times for different districts in the field of touch not explicable by difference in the length of sensory nerve traversed, but probably due to difference in the closeness of relation between centers for tactile sense in the brain and the motor center for the hand. It may, therefore, happen that a response is given sooner by the hand when its skin is stimulated than when the mucous membrane of the tongue is stimulated, although in the latter case the impulse has a much shorter tract of sensory nerve to traverse. When the right hand gives the response the shortest reaction-times for hearing and touch

are obtained by stimulating the right ear and the right cheek. In the experiments on sight, both eyes were used at the same time. The influence of fatigue on reaction-time and the remarkable restorative effect of tea were demonstrated by photographs.

Frog-skin Grafting.—SMITH (*Boston Medical and Surgical Journal*, vol. cxxxii, No. 4, p. 79) has reported the case of boy, five years old, who suffered a deep and extensive burn, involving an area of the trunk, face, and neck. The part involved was bounded by a line extending from the thyroid cartilage down the median line of the body to within an inch of the umbilicus; thence around the trunk to the median line of the back; from here up to the external occipital protuberance; thence to the malar bone on the left, including a portion of the ear; diagonally across the face to the right angle of the mouth, and finally reaching the thyroid cartilage.

When seen, four weeks after the accident, the entire surface was covered with healthy granulations that bled freely upon the slightest touch. The fold of the axilla had become firmly adherent to the chest, binding the arm firmly down. To expedite recovery, and in view of the unfavorable condition of the subject, grafting with the aid of frog-skin was decided upon. Small pieces, each a quarter of an inch square, were placed in rows, each separated from the other by a space of half an inch; and this was repeated until, after the lapse of seven weeks, the whole surface was covered. The treatment was repeated daily, from twenty to eighty frog-grafts and a smaller number of human grafts being used on each occasion. The surface was first cleansed by irrigation with a warm solution of boric acid 1 to 40, and subsequently washed with a stream of sterilized water. Each graft was then firmly pressed into the granulation-surface, and subsequently a dressing of boric acid and vaselin, a dram to the ounce, was spread upon strips of compressed cloth and applied so as to fit the parts. Over this was placed sterilized gauze and finally a rubber bandage. In all nearly a thousand frog-grafts and four-hundred human grafts were used.

Pylorectomy for Carcinoma.—JESSOP (*British Medical Journal*, No. 1778, p. 189) has reported the case of a woman, forty-nine years old, in which pylorectomy was performed for the relief of obstruction of the pylorus by malignant disease. In the course of a few months the woman resumed her ordinary duties, and three years later she appeared in good health. The tumor removed was an inch-and-a-half long and six inches in circumference. The pyloric opening barely admitted the tip of the little finger; the stomach-wall was much thickened; the duodenal wall less so. At the lower part of the pyloric opening was a saucer-shaped ulcer of the size of a shilling, with a thickened base. Microscopically the tumor consisted principally of densely packed fibrous tissue, with intervening small round cells, and here and there in the interstices of the fibrous tissue were the remains of degenerated glands, which were numerous in the deeper layers of the section outside the fibrous tissue.

Suppression of Urine in Diphtheria.—GOODALL (*Lancet*, No. 3727, p. 269) calls attention to the occurrence of urinary suppression in the course of diphtheria in the absence of distinctive lesion of the kidneys, and cites six illustrative cases.

In one there was total suppression for nearly seventy hours before death; in a second for fifty-seven hours; in a third almost total suppression for forty-two hours; in the fourth, partial suppression for some days and total suppression for twenty-four hours; in the fifth, partial suppression for four days, and in the sixth, the only one in which recovery ensued, the amount of urine was notably diminished for a period of fourteen days. All of the cases were severe and presented albuminuria. Besides the anuria there was often vomiting, and symptoms of cardiac failure were nearly always present, death often taking place from this cause. There was usually also much local exudation upon the fauces.

THERAPEUTIC NOTES.

The Treatment of Erysipelas with Strong Alcohol.—LANGSDORFF (*Centralblatt für Chirurgie*, 1895, No. 8, p. 189) reports the employment of topical applications of strong alcohol in the treatment of thirty-two cases of erysipelas. Soft, thick linen compresses are saturated with the alcohol, and are renewed every fifteen or twenty minutes, being covered with dry cloth and gutta-percha tissue. If the face is affected, cotton compresses are used instead of linen as adapting itself better to the irregularities of the surface. The compress must be saturated with alcohol, and should be frequently changed. In all cases thus treated the symptoms speedily receded. Some little discomfort was experienced from the applications when the face was involved and in the case of sensitive persons who were unpleasantly affected by the odor. The redness and tension often disappear in the course of eight or ten hours, after which the intervals of application may be lengthened. Recovery, as a rule, resulted in the course of two or three days. If the morbid process manifested a disposition to extend, the applications were made to include the new areas involved. For the dryness of the skin following the applications lanolin was found serviceable. Official absolute alcohol diluted with 1 per cent. of water was employed.

Gallanol.—JOSEPH (*Berliner klinische Wochenschrift*, 1895, No. 8, p. 164) reports results obtained from the employment of gallanol, the anilid of gallic acid, in the treatment of various diseases of the skin. He found the remedy not to be compared with chrysarobin in activity and efficiency in the treatment of psoriasis, but applicable in the milder forms and when rapidity of result was not essential. Gallanol has the advantage of not soiling the hair, the skin, and the linen. The remedy was employed in a 10 per cent. traumaticin-solution, and for psoriasis of the head and face in the form of a 10 per cent. ointment. The remedy proved less successful in the treatment of eczema. In this condition it was employed in the form of powder in various concentrations. It was likewise employed as an ointment in varying strengths, but no influence was exerted either upon the eczema or upon the itching. The results in herpes tonsurans and eczema marginatum with a 10 per cent. solution were similar to those obtained in the treatment of psoriasis.

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GYNECOLOGY AND PSYCHOLOGY.

WHEN ARETAEUS described the womb as an animal within an animal, wandering about, attracted by fragrant things and fleeing from fetid, he foresaw, as through a speculum dimly, the era of modern gynecology. When PLATO said that the womb is desirous of generation and that, if unfruitful, it turns indignant and wanders about the body, stopping the passage of the humors, he clearly indicated the necessity, in some cases, for a modern hysterectomy. When PAUL, of Aegina, declared that hysteria is caused by putrid secretions in the uterus, he discerned, as with prophetic vision, the fountain-syringe and a 1–4000 solution of mercuric chlorid.

Thus, in the dawn of science, the errant womb, issuing from prehistoric darkness, with a train of sacrificial priests, appears already surrounded and obscured with a mysterious *cult*. Not even phallic worship—potent enough in all ages—will hold the world-stage with her. On through the ages, behind her impenetrable veils, with which conventionality had replaced her primitive fig-leaves, she comes claiming the allegiance and the worship of men. Thus she advances, with her rites almost unchanged, to the modern era.

We are now in the period, however, in which the sacrifices are too suggestive of human blood; in which the penance is too exacting of human hopes and reason. Let us explain ourselves.

The theory of the psychologic school of gynecologists is that the womb and its appendages are the etiologic factors in some forms of insanity. Therefore, they advise that the cause be removed; that the ovaries especially, and, if opportunities are favorable, the womb itself, be cut out. In this their *confrères* of the gynecologic school of psychologists in the main agree with them, only urging that due caution be had for Boards of Directors and Trustees.

According to this theory, the "mind," having been freed from the assaults of the erratic womb, ought to swing at once into static equilibrium. Possibly it would do so if it were simply the inert mass that this theory seems to presuppose it to be. But it is not an inert mass, simply acted on *per vaginam*. No speculum has yet explored its hidden mysteries; no celiotomist has yet penetrated through *its* walls to the complex source of its diseases. It is not a mass receiving its impulses from a body of unstriped muscular tissue. It is an assimilating "psyche," and, unfortunately, when insane it grows by what it feeds on. It can, moreover, just as readily feed on a gynecologic operation as on more wholesome and inviting food. All of which has been illustrated to us recently by a most instructive case.

An unmarried woman, of highly nervous organization and with a constitutional tendency to imperative conceptions (mental, not uterine), was relieved of her womb and ovaries by an enterprising surgeon. There is no question that the womb was diseased, having undergone some fibroid enlargement. It had not, however, interfered with her health, which was impaired only by beginning delusional ideas, which were commencing to control her. She made, rather unfortunately it seems for her, an uninterrupted recovery; and we have no doubt that her case has gone to swell the records of "successful" operations reported by this particular surgeon.

During this first stage of her disease it seems that an expert study of her mental condition was not made; this was done some months later, when she had graduated from the gynecologic ward into an insane-asylum. The complexus of her delusions, then, was about as follows:

Starting with the operation she reasoned (if one

may call it reason) that she had furnished, not a *successful*, but a *fatal* example; and this, especially, because the operation in her case had been so well done. This very fact—such was her insane logic—would induce this particular surgeon, and other surgeons who should hear of her case, to perform other operations, and would encourage other patients to submit to them. Because of the tendency, which she knew existed in some surgeons, to remove the uterine appendages for nervous conditions on small provocation, she believed that she was morally responsible in having encouraged them, and that in cases of fatal results the sin (?) would be on her head. In addition to this obliquity of thought, she suffered from her reflections on the results in her own case. She apparently felt that she had dishonored herself in submitting to an act which, to her supersensitive mind, was shameful in that it had resulted in *unsexing* her. Because of this train of ideas she had become profoundly melancholy, and had suicidal impulses.

Comments on this case may be brief. In the first place, we do not share the patient's insane idea that she or her surgeon is culpable. We freely give the surgeon credit for having acted from an honorable and, as it doubtless seemed to him, a scientific motive. We judge the case purely from the psychologic standpoint. We point out the fact that radical operations in the genital zone may be performed with a two-edged scalpel, which may cut in an entirely opposite direction from what was intended. Such an operation must be studied in its effects upon the patient's mind; not in the intentions of the surgeon, nor in the purely surgical result. We perceive clearly that in the case here cited the operation undertaken has supplied the whole pabulum for a grave psychosis—a fact to the possibility of which gynecologists are too often blind. If it were an isolated case, we might not care to draw too sweeping a deduction from it, but unfortunately we have known others like it.

In the second place, the operation, as has been justly said, is one of that small class that are condemned by their very successes. This is strikingly shown in the case of this poor woman, whose most disturbing thought is that she has furnished an example.

Finally, the case illustrates how easy it is in these patients to disturb the moral *ego* whose seat is in a wandering brain instead of in a rampant uterus.

NO STATE APPROPRIATIONS WITHOUT STATE SUPERVISION.

THE work of apportioning the State money among the Pennsylvania charitable institutions that apply for assistance has grown to such an extent that it is beyond the power of the Appropriation Committees to give it the proper attention and so to divide the money that it will go to the most deserving. Representative Fow has introduced a bill that aims to regulate the disposition of State moneys to charitable and other institutions not directly under the control of the State, by providing that the Senate and House, by a two-thirds vote, shall appropriate at every session such moneys as may be left in the State Treasury after the Executive, Legislative, Judicial and other State departments, penal institutions, State hospitals and all other State institutions absolutely under State control have been provided for, to the Governor, Lieutenant-Governor, Attorney-General, State Treasurer, Auditor-General, and Secretary of Public Charities, as Trustees, to make such division among those asking for State aid as are legally entitled to it, in such proportions and such amounts as may seem to them fit and proper.

In New York City a bill making an appropriation for a lying-in asylum is the latest of a series of acts passed during the last thirty years compelling the city to appropriate moneys to charitable institutions wholly or partly under private control. In this bill an endeavor seems to have been made to conform to the provision of the new Constitution that payments by cities to charitable institutions may be authorized, but shall not be required by the Legislature; but the attempt has not been successful, and the act is clearly in violation of the Constitution. The introductory clause of this act provides that "the Board of Estimate and Apportionment *shall* annually include in its final estimate the following sums, which *shall* annually be raised and appropriated." This clause has always been construed to be mandatory, and it is under this act that the Board of Estimate and Apportionment has appropriated $1,478,723.00 for the support of charitable institutions during the present year. The lying-in asylum act *permits* the city authorities to provide an appropriation for the current year, but it will *compel* such appropriation in succeeding years, and is mandatory in the fullest sense of the term.

Thus, in the great States of Pennsylvania and New York almost the last vestige of economy, control,

and justice in reference to appropriations to private institutions is thrown away, and all corporate bodies of men, with so-called charitable institutions in front of (or behind) them, are to be permitted to divide between themselves all the money not needed for legal and necessary State purposes. It is a question of rushing in and grabbing what is left, and the State is to have absolutely no oversight or control as regards the honesty or methods of spending the money. In these days of sharp competition in the hospital business, in these days when hospitals pay money to advertise for patients, could anything be more unbusiness-like, barbarous, disgusting? In New York many abuses have been brought to light as the result of such unaccounting and unaccountable use of money. One institution received in 1893 from the city $93,291, and expended but $76,803, leaving a net profit of $16,488.

This yearly scramble, with payment of lobbies and attorneys, by hospitals and asylums, is a remarkable product of nineteenth-century statesmanship. The unreasoning public thinks either that whatever is called a hospital is holy and blessed, or, with true Socialistic cunning, is very willing to get medical services for nothing. Then, again, one hungry and clamoring, but worthy, institution cannot say a word about its unworthy neighbor, equally famished and greedy, and so, regardless of merit or right use of the money, all fight for "the remains of the feast," and that one that has the best "political pull" gets the most. But all get something, because the poor bedevilled legislators or members of committee must all shut their mouths.

Now, it is an open secret among medical men that the motives of the men governing and using dispensaries and hospitals are by no means always pure and unselfish. Many hospitals are founded and carried on neither solely for the love of science, for the benefit of the profession, or for the love of humanity. It is also fast becoming recognized that treating people's diseases indiscriminately without payment therefor is often as great an injury to society as to the medical profession. All that goes under the mask of charity is by no means charitable, and nowadays discrimination in benevolence is quite as obligatory as benevolence itself. But, with the hundred of institutions of true charity that modern civilization demands of the State, but which as yet are unsupplied; with the absolute certainty of a reduced death-rate from the application of scientific sanitation; with preventive medicine guaranteeing fifty or one-hundred per cent. interest on every dollar of outlay—with these and the like knowledge of the *causes* of disease upon our consciences, it is to play the part of the most asinarian of asses to throw away hundreds of thousands, nay millions, of dollars upon the individual and ever-recurring *results* of disease —and that without a thought or a glance of subsequent control or of supervision. Why should not these hospitals supported by the State care *pro rata* for the pauper sick? Why should the taxpayers pay first the private hospital for services it will not render, and then these same taxpayers be compelled to keep their own city hospital? It is an outrage both to American financial ability and to the rare article called "common" sense. Let the fundamental principle hereafter govern all distributions of State moneys to private charitable, or supposed charitable, institutions: *No State appropriations without strict accountability and State supervision!*

EDITORIAL COMMENTS.

The Protection of Non-motormen. — The ministerial unions, we learn from the daily press, are stirring themselves up in behalf of the motormen. The motormen are too much exposed to the weather, and should, in the opinion of some ministers, be enclosed in glass houses—before summer, we hope. But the old proverb about glass houses, like most old proverbs, holds good, no matter how we twist its application. In their glass cages the motormen will have to be more careful than ever, or they will cease to be objects of public sympathy and altruistic sentiment. It is even an instance of poetic justice that the motormen who get most frozen are they who yield most to the bad American habit of being too much in a hurry, and these are the very men who most endanger the life and limb of the non-motormen.

For the world, including women and children, may for present purposes be divided into two great classes, the motormen and the non-motormen. How to enclose and protect the non-motormen is, after all, the great sociologic problem, for the non-motormen are multitudes, the motormen are but few, and the former are often quite valuable to society, many of them being highly respected and useful. They are often students and scholars, eminent divines, lawyers, doctors, judges, and merchants. Such men are often wrapped in "brown studies" in all weathers, and oblivious of danger. They may even be cogitating the invention of trolley-fenders, and meet death in such abstraction.

The non-motormen should be especially protected when, as is often the case, they are feeble and perhaps crippled by wounds received in the army or elsewhere. Their sight may be impaired also by long use of the microscope in pursuit of deadly microbes, or from too long reading to sick persons, or the study of the canals of Mars through the telescope, or other equally benevolent pursuits. They must be cared for and not left ex-

posed to the inclemency of the trolley and its motorman. For this is worse than the winter-wind, just as the winter-wind is not less unkind than man's ingratitude. For the trolley blows and whistles and creaks and rattles all the year, while Boreas and Auster and their fellows have but a short season; and these worthies only nip the nose and cheeks and cover the moustache with frosty rime, and stiffen the toes and fingers with cold. But the trolley when it strikes is very striking, and when it nips it nips the head from the shoulders; and when it stiffens it stiffens the body with all its limbs and members, making it what is technically termed "a stiff."

Various plans have been suggested to save the non-motormen—one is a wire cage with spring buffers, which is ungainly and might tend to create a sense of isolation and a class-feeling which is so much to be deprecated. Feather cushions strapped on the prominent points of the valuable citizen have been advocated. But the plan that has received most favor is that of a well-known electrician, who proposes to have each citizen carry a small battery and sound an electric gong every few seconds to warn the motormen. This seems practical, and when once the custom of wearing the battery becomes universal it could be further utilized to furnish an electric light, and illuminate the citizen at night, thus adding another element of safety. Infants and the aged could carry lights of a peculiarly striking character, or a variation of color or of the pitch of the electric gong, or both, might be employed to distinguish men of different pursuits. The Councilmen might carry a more automatic gong, for instance, and more numerous electric lights. This idea is more captivating the more the mind dwells on it. One can in fancy imagine the streets of the future resounding by day with myriad bells of varied tone, and these isolated notes by a great natural law would seem to group themselves in a mysterious rhythm and harmony, while at night the added gleam of innumerable, ever-moving colored lights would indeed lend to the now prosaic world a missing tinge of paradise.

Serious Infection Through Slight Wounds.—The possibility of the development of profound constitutional phenomena as a result of general infection of a non-specific kind through local lesions has long been recognized and appreciated. When the chain of events in this process was not so well understood as it is now the condition was in a vague way designated "blood-poisoning." At a later date the new pathology coined the term "septicemia," and its sub-divisions "septic infection" and "septic intoxication;" while these in turn have with further progress been supplanted by the terms "infection" and "intoxication" without special qualification.

"Infection" may be defined as a morbid condition dependent upon the presence and activity of pathogenic microörganisms, and may be local or general. "Intoxication" is practically synonymous with "poisoning." It may be due to the presence in the circulation of the toxic products of an infective process, local or general, or of any other substance capable of causing toxic manifestations. It may thus be due to alcohol, to lead, to arsenic, and to other substances, as well as to the toxic products of the vital activity of micro-organisms, whether generated in the laboratory or in the human body.

Of the two conditions under consideration we have many examples. Most infectious processes—perhaps we would be justified in saying all—are at the outset local. Some remain so; others become general. All, however, are attended at some stage with intoxication. These statements are as true of tuberculosis as they are of tetanus, of diphtheria, of cholera, of typhoid fever, and of pyemia. Syphilis must be considered an infectious disease, although its cause has not yet been isolated with certainty. The distinctive characteristics of infectious diseases are their transmissibility and the possibility of indefinite multiplication of their cause. Most of the infectious diseases destroy by intoxication, rarely by general infection.

The propositions that have thus far been made would seem to apply equally to the malignant neoplasms. While in these the etiology remains an unsettled question, it is generally admitted that such growths are primarily local, and that metastasis can be prevented by timely and radical extirpation of the original growth. These facts in a measure justify the classification, tentatively at least, of malignant tumors, particularly carcinoma and sarcoma, among infectious diseases. That such new formations do give rise to manifestations of general intoxication is a well-recognized clinical fact, and one of the most pronounced phenomena of which is the almost invariable cachexia that appears.

As illustrative of some of the points referred to in the foregoing remarks we wish to cite an interesting observation in which acute nephritis developed in the sequence of staphylococcous infection of slight wounds upon the hands.

SACAZE (*Revue de Médecine*, 1895, No. 2, p. 136) has reported the case of a man sixty-five years old, and previously well, who in handling lumber received slight wounds upon the dorsum of each hand, which in the course of a few days became inflamed and angry. At the same time profound constitutional symptoms appeared, and the clinical picture of an acute nephritis developed, leading to a fatal issue. It is believed, and reasonably, it appears to us, that the train of events was due to general infection with staphylococci, which were found in the discharge from the slight wounds upon the hands.

The Medical Department of the University of Michigan.—As a way out of the difficulty in the department of medicine and surgery of the University of Michigan occasioned by the existence of a so-called homeopathic department in addition to the regular department of medicine and surgery, the Chairman of the Committee on Medicine, to which was referred the communication of the dean of the homeopathic department, proposing a form of amalgamation, as outlined in THE MEDICAL NEWS of March 2, 1895, p. 248, recommends the establishment of a chair of homeopathic materia medica and therapeutics in the regular department of medicine and surgery. It is intended that this course shall be obligatory on all students of medicine, but that no division of clinical chairs should be made according to so-called "pathies." The best men should be selected for the chairs, irrespective of dogma or peculiarity of practice. It is pointed out further that the "pathy" element exists only upon the one side, allopathy being a term in employ by sectarians and no

accepted by regular practitioners. As is pointedly remarked, the assumption of sectarian designation should not be a sufficient reason for appointment to a chair of surgery or gynecology or other practical teaching position. Educational institutions under the care of the State and sustained by State funds should be administered in the interests and for the welfare of the entire community, and not for the benefit of any one class or portion. The only intelligent course for the Board of Regents of the University of Michigan to pursue is that proposed by the Chairman of the Committee to which the matter was referred—*i. e.*, the establishment of a course of lectures on homeopathic materia and therapeutics in addition to and in conjunction with the regular course of medicine and surgery.

Leukocytosis in Hypertrophic Cirrhosis of the Liver with Chronic Jaundice.—The chronic interstitial inflammation of the liver commonly designated cirrhosis, together with its morbid anatomy and characteristic symptomatology, has become well known since the time of Laennec. It is, however, only within a comparatively recent period that another form of a similar process in the liver has been described by Hanot, under the designation of hypertrophic cirrhosis. The former of these has further, for purposes of distinction, been called the portal form, the latter the biliary form, from the respective distribution of the morbid process. The clinical differentiation is based upon the diminution in the size of the liver (preceded or not by recognizable enlargement), and possibly similar changes in kidneys and spleen, together with the early appearance of ascites, and the late appearance of jaundice, in the one condition, and the progressive enlargement of the liver and also of the spleen, together with early and pronounced jaundice, and the absence or later appearance of ascites, in the other condition. As an additional diagnostic feature Hanot and Meunier (*Compt. Rend. Hebdom. des Séances de la Soc. de Biologie*, 1895, No. 3, p. 49) call attention to the occurrence of leukocytosis, which they found a constant feature in three cases of hypertrophic cirrhosis of the liver with chronic jaundice, in the absence of any extra-hepatic inflammatory process. Isolated observations by others point also to the existence of the same association. The number of white cells averaged 15,500 per cubic millimeter, as compared with 6000 under normal conditions. In other varieties of cirrhosis no increase in the number of leukocytes was observed. This peculiarity of hypertrophic cirrhosis is considered evidence in favor of its infectious nature and a means of differentiation.

The Complications of Influenza.—We are now emerging from the fifth recrudescence of the pandemic of influenza which has been followed by such devastation and which has left so much wreckage in its wake. Different epidemics have presented somewhat differing symptom-groups, and the fatality of the disease seems somewhat to have subsided, although its virulence otherwise appears to have been fairly well maintained. The nervous system has played a large and important part in the symptomatology of the disease in the successive outbreaks, and the related sequelæ have been numerous and serious.

SANSOM (*Liverpool Medico-Chirurgical Journal*, 1895, No. 28, p, 118) has recently reported three cases of influenza followed by disease of the spinal cord. The first occurred in a woman, fifty-one years old, in whom a second attack of influenza was followed by paralysis of the arms and legs, with pains, tremors, rigors, and erratic temperatures, with paralysis of the thoracic muscles, arthritis, double optic neuritis, and death. The second occurred in a woman, twenty-two years old, was complicated by arthritis, presented dysesthesia and paralysis of the arms and legs, with tremors and signs of muscular incoördination, and terminated in recovery. The third case occurred in a rheumatic subject and was complicated by the development of paralysis of the arms and legs, with tremors and signs of rigidity and wasting, and also pains and dysesthesia, with symptoms of disturbance of the vagus, and finally mono-arthritis. Improvement followed treatment.

Optic Neuritis in the Sequence of Scarlatina.—A certain parallelism exists in the symptomatology of the various infectious diseases, and the nervous system seems peculiarly susceptible to the action of the poisons generated as a result of the morbid process. The optic nerve not rarely suffers in this connection, even when other parts escape. These points are well illustrated in a case reported by D'Oench (*American Medico-Surgical Bulletin*, 1895, No. 4, p. 238) at a recent meeting of the Section on Ophthalmology and Otology of the New York Academy of Medicine. In a boy, seven years old, sight began to fail during convalescence from an attack of scarlatina. The pupils were dilated, but reacted feebly to light. Both eyes presented optic neuritis, more marked in the left. The boy was drowsy and the back of the neck was tender. The urine presented no abnormality. As improvement failed to follow the administration of calomel, increasing doses of potassium iodid were directed. After a while perception of light returned in the right eye, and some days later large objects could be perceived and the pupil responded to light. In the course of a month the hemorrhages that had been observed had entirely disappeared, and vision was almost entirely restored in the right eye, though entirely absent in the left. Both papillæ were markedly atrophic. After the lapse of a year the condition of the left eye was unchanged.

Teaching Old Nerve-centers New Tricks.—Veterinary-Captain F. Smith, at the last meeting of the British Association, recited a suggestive experiment carried out upon two horses afflicted with laryngeal paralysis, the object being to secure a new nerve-supply. This was sought in the spinal accessory. The recurrent and spinal accessory were exposed and divided, and the proximal end of the accessory was sutured to the distal end of the recurrent. The results were very encouraging. In one case there was relief of the harshness in breathing and the dyspnea, and in the other the noisy breathing persisted but the distress was relieved. It would, therefore, appear that a nerve-center may possibly be educated to perform a duty for which it was not originally intended.

Picking of the Bed-clothes in Disease.—SIR BENJAMIN WARD RICHARDSON (*Asclepiad, second quarter*, 1894–'95, p. 159) points out that while picking of the bed-

clothes in advanced stages of disease is in general indicative of dissolution, it is not invariably so, and may be followed by recovery. The phenomenon is peculiar in that it is always the same in character. It appears in both hands as a sharp movement, as if it were intended for the picking up of something which the patient sees or thinks he sees, but of which, as a rule, he later has no recollection. Jactitation of the muscles of the forearms and hands is the most common accompanying manifestation, although there is no proportionate relationship or intensity between the two. The phenomenon is not distinctive of any particular morbid state or disease, but usually appears in connection with gradual sinking or collapse, and must be considered an ill prognostic omen.

Tracheotomy and Diphtheria.—SIR BENJAMIN WARD RICHARDSON (*Asclepiad, second quarter*, 1894–'95, p. 161) offers the suggestion that tracheotomy for the relief of laryngeal stricture in the course of diphtheria is a curative measure not merely by its admission of air into the lungs, but by allowing such admission without the passage of air over a decomposing surface.

CORRESPONDENCE.

LONDON LETTER.

Death of Mr. Hulke—The Royal Society—Death of Sir William Savory and of Mr. Hake—Honors to Medical Men—The Antitoxin Treatment of Diphtheria—The Epidemic of Influenza.

LESS than eighteen months ago the President of the Royal College of Physicians, Sir Andrew Clark, was struck down in the midst of his work. Now the Royal College of Surgeons has lost its official head in a manner almost as dramatic. Mr. Hulke was to have delivered the Hunterian Oration at the College on February 14th, and he had arranged for its publication in the *British Medical Journal* of February 23d. The oration duly appeared, but before that date the "blind fury with the abhorred shears" had snipped the thread of the orator's useful and laborious life. Mr. John Whitaker Hulke had stood by the deathbed of the great Duke of Wellington, who was a patient of his father, and had been a prominent figure in the medical profession of this country for more than thirty years. Though best known as an ophthalmologist, he was an excellent all-round surgeon, and but for a certain infirmity of temper he would probably have been the leading consultant in London. Those, however, who most fully recognize the sterling qualities of the man acknowledge that he was, as Thomas Carlyle's mother said of her distinguished son, "gey ill to live wi'" in a professional sense. He brooked no brother near his throne; in fact, he owed his death to his characteristic unwillingness to delegate any part of his duties to colleagues. He insisted on leaving his bed on one of the coldest nights of this bitter winter in order to operate on a case of strangulated hernia at the hospital. This operation is looked upon in the London hospitals as a perquisite of the assistant surgeons if the emergency occurs at night. Mr. Hulke's somewhat jealous insistence on his prerogative was rather what the French call the "defect of his virtues" than a fault, and though we may regret that he should have exposed himself to a totally needless risk, we cannot refuse a tribute of admiration to a man who fell a victim to his own sense of duty, however mistaken we may consider it to have been.

In Mr. Hulke the English profession has lost a man of the highest professional character, one whom, in these days of self-advertisement and questionable short-cuts to success, it can ill spare. In addition to his eminence as a surgeon he had won an honorable name by his paleontologic researches. He was twice chosen President of the Geological Society. He was also a Fellow of the Royal Society, a learned body which, though not so very long ago open to mere rank and influence, now guards its portals so strictly that admission is the seal that stamps a scientific reputation as genuine. This distinction is becoming much rarer among surgeons than it was even a few years ago. The Royal Society does not recognize mere professional work, however good of its kind, as a title to membership, and the younger race of surgeons who are nothing if not "practical" have probably discovered that pure science does not "pay." It is possible also that the power of selection is somewhat too much in the hands of one man as far as medical candidates are concerned. Professor Michael Foster is admittedly one of the brightest lights of the physiologic firmament, and he has quickened the Medical School of the University of Cambridge into new and vigorous life. As Secretary of the Royal Society, however, his activity has sometimes been less happily directed, and rightly or wrongly an impression exists that the scientific Peri who has not found favor in the Secretary's sight is doomed to wait disconsolate at the gate of the paradise of science.

Among other notable members of the profession, who have recently passed away are Sir William Savory, a former President of the Royal College of Surgeons, and for many years surgeon to St. Bartholomew's Hospital, and Dr. Thomas Gordon Hake, a cousin of General Gordon, the hero of Khartoum, and a poet whose powers were very highly thought of by men like Dante Gabriel Rossetti, Algernon Charles Swinburne, and Theodore Watts.

Oliver Wendell Holmes speaks of there being a whole museum of wigs, and masks, and lace coats, and gold sticks, that are still used in the Old World, and which the enlightened citizens of the United States laugh at honestly without affectation. In this museum the "Autocrat" would doubtless have placed titles, though, by the way, many of his countrymen who happen to be fathers of what the Scotch call a "lass wi' a tocher" do not seem altogether to share his contempt. There are two seasons—the New Year and the Queen's birthday—when a wave of excitement passes over a number of more or less worthy folk who have a keen sense that their services deserve public recognition. At these times a few titles are flung to the more favored or more persistent claimants—*pour encourager less autres*. One or two of these glittering baubles are usually given to the medical profession.

To practising physicians such distinctions have a solid value in this snob-ridden country; a title is an excellent advertisement, and vulgar rich people pride themselves on "never having anybody lower than a Bart."

when a consultant is wanted. The Queen is not always particularly fortunate in her selection of those whom she delights to honor—at least in the opinion of those who are passed over. The keeper of the royal conscience in the matter of medical dignities is her trusted physician, Sir William Jenner, a man against whose uprightness and integrity not even the *invidia medicorum*, which is the worst form of envy, can find anything to say. If in the apportionment of titles he has seemed to show a preference for the men of his own school (University College), that is probably due to the fact that he has had better opportunities of forming a judgment as to their merits than in the case of others whose work has fallen less directly under his eye. There can be no stronger proof of the real eminence of Sir Russell Reynolds and Sir John Erichsen, the two members of the medical profession whom the Queen chose to be the recipients of "New Year honors," than the fact that though both belonged to the privileged school of University College, the distinction conferred upon them has been universally recognized as due entirely to their merits. In the case of Sir John Erichsen in particular the only reason for wonder is that a title which is the highest public recognition accorded to the art of healing in this country should have been so long withheld. Sir John might say with old Samuel Johnson, that the honor, such as it is, has been delayed till he is past caring for it, or, at any rate, till he is solitary and cannot share it, for he lost his wife last year, and has no children around his desolate hearth. He is now seventy-seven years of age, and has retired from active practice. He still, however, takes an interest in matters affecting medical education and in the furtherance of the scheme of a real living and teaching university for London; and he has just been reëlected President of University College. A new (tenth) edition of his well-known text-book, *The Science and Art of Surgery*, is now in press; the first volume has already been issued. The first edition was published in 1853, and in this country alone some forty-thousand copies have been sold. In the United States the sale has also been very large. During the Civil War a copy of the work was issued by the United States Government to every medical officer in the Federal Army. It has been translated into German, Italian, and Spanish, and in the last version it has had a wide currency in South America. To be the author of such a work is a far higher distinction than the title of "Baronet," which is often given by the powers that be to supporters whose political enthusiasm expressed itself in liberal contributions to party funds.

Sir Russell Reynolds is President of the Royal College of Physicians, a dignified post, which almost demands that its occupant shall be a Baronet. The man is, however, in himself worthy of any honors that the Queen can bestow on him. His indifferent health has of late years made him somewhat less prominent in the public eye than his position in the esteem of the profession would have led one to expect; and when the presidency of the Royal College of Physicians became vacant by the death of Sir Andrew Clark greatness was thrust upon, rather than sought by, him. He began his career with a singular stroke of luck, for he succeeded to the practice of Marshall Hall, whose daughter he married.

Among the questions of practical medicine which at present engage the attention of the profession the principal are the antitoxin-treatment of diphtheria and the influenza. The former is being tried all over the United Kingdom, and, as far as present experience warrants a judgment, there is a pretty general agreement that the remedy, when used under proper conditions, is a real specific. The disappointment that followed the tuberculin "fizzle" has made us rather shy of remedies belonging to the new therapeutic *règime*—especially such as are "made in Germany." This makes the footing that antitoxin is gaining for itself all the firmer, for it is conquering prejudice as well as scientific skepticism. The experiments are carried out in the light of day, and the results are faithfully reported, whether they make for or against the new remedy. As regards the antitoxin prepared in this country by the British Institute of Preventive Medicine, and by Dr. Klein, of St. Bartholomew's Hospital, no suspicion of any taint of commercialism is possible. It would be well if the same could be said as to the German supply; the price at which Behring's preparation was at first sold caused an outcry in the Fatherland, and now a patent for the preparation of remedial and immunizing substances, "the so-called antitoxins," in England has been applied for on behalf of "Hans Aronson, of 11 Fasanenstrasse, Charlottenburg, in the Empire of Germany, Doctor of Medicine." This exploitation of scientific research for personal profit is an ugly feature in the more recent history of German discovery, which may, perhaps, help to explain Virchow's unfriendly and suspicious attitude toward it.

As for the influenza, we seem, unhappily, to be no better able to deal with it in this, the fifth epidemic since 1890, than we were on the first visitation. It is to be feared that influenza has now taken its place as an *opprobrium medicinæ*. It is worthy of note that whereas in former epidemics the medical journals used to be full of remedies, each more infallible than the other, this time, so far, no new specific has been propounded, and the advocates of the old ones are more modest in their claims. Experience has, in fact, shown that the only remedy for influenza is to go to bed as soon as the disease has got one in its grip, and stay there till it has been shaken off. One curious feature in this, as in some previous epidemics, is the partiality which the influenza-bacillus manifests for our legislators—Lord Rosebery, the Prime Minister, and Mr. Arthur J. Balfour, the leader of the opposition in the House of Commons, are among its victims. At first the bacillus seemed to make a dead set at the supporters of the Government, and as the Liberals have a very narrow majority, it appeared not unlikely that they would be beaten by the influenza. They were saved by the bacillus in the nick of time turning its attention to the Tories.

NEWS ITEMS.

Sextuplets.—A well-authenticated case of sextuplets is reported from Italy. A woman, thirty-six years old, presented in the fourth month of her second pregnancy enlargement of the abdomen equal to that ordinarily observed at the end of normal pregnancy. While straining

at stool on the one-hundred-and-fifteenth day the membranes ruptured, a foot prolapsed, and a fetus was delivered by a midwife. After a brief delay a foot was again brought down, and a second fetus was delivered, and successively a third, a fourth, a fifth, and a sixth. All of the children were born alive, and moved vigorously for a time. Four were males and two females. There was a single placenta and six amniotic sacs. Puerperal convalescence was practically normal. A year later the woman gave birth to healthy twins which lived.

Charcot Memorial.—The following is a statement of the contributions thus far received to the Charcot Monument Fund:

New York City.

Dr. E. C. Seguin	$50
M. A. Starr	50
E. D. Fisher	50
C. L. Dana	20
C. A. Herter	50
A. Jacobi	10
Frederick Peterson	10
B. Sachs	25
George W. Jacoby	10
Ralph R. Parsons	5
J. A. Booth	2
J. F. Terriberry	2
D. Webster	1
Samuel B. Lyon	5

Philadelphia.

Philadelphia Neurological Society	$150

Baltimore.

Dr. Wm. Osler	$50

Pittsburg.

Through Dr. T. D. Diller	$58

Montreal.

Through Dr. Jas. Stewart	$19

Boston.

Dr. J. J. Putnam	$5
P. C. Knapp	5
Medico-Psychological Society	25

Buffalo.

Through Dr. J. W. Putnam	$15

Denver.

Through Dr. W. T. Pershing	$10

St. Louis.

Dr. L. Bremer	$10

Chicago.

Dr. Archibald Church	$5
Total	$642

It is desirable that persons wishing to add to the fund send their contributions without delay to the Secretary,

DR. C. A. HERTER,
819 MADISON AVE., NEW YORK.

Dermatologic Prize essay.—The annual prize of 300 marks offered by Professor Unna, of Hamburg, for an essay upon some subject in the domain of dermatology, not having been awarded during the year 1894, the amount has been doubled for the year 1895, the subject selected for consideration being: "An investigation as to the accuracy of the propositions recently made that callagenous, elastic fibers and fixed (pigmented) connective-tissue cells dip down into the normal prickly layer."

The competition is unrestricted. Essays must be submitted to Leopold Voss, Hohe Bleichen 34, Hamburg, before December, 1895, from whom also further particulars can be learned.

The Isabella Heimath is the name of an institution in New York dedicated to the care and maintenance of aged indigent persons, of chronic invalids, and of convalescents, without regard to sex, creed, or race. It is the outcome of an institution founded a number of years ago to serve as a home for indigent women. It was soon seen that a similar institution for indigent men was needed, and accordingly, in 1889, Mr. Oswald Ottendorfer erected and equipped a splendid building, at a cost of $600,000, and other members of his family contributed a large endowment-fund for its maintenance.

The Buffalo State Hospital.—Governor Morton has nominated the following as managers of the hospital: Daniel H. McMillan and Charlotte S. Williams, of Buffalo, reappointments. Charlotte Miller Glenny, of Buffalo, in place of Sadie R. Altman. John E. Pound, of Lockport, in place of John H. Meech. Roswell Park, of Buffalo, in place of William J. Tremaine. Joseph P. Dudley, of Buffalo, in place of Henry D. Kirkover. Frederick P. Hall, of Jamestown, in place of William M. Irish.

Extirpation of the Larynx for Malignant Disease.—At a recent meeting of the Académie de Médecine of Paris Prof. Péan presented a man from whom had been removed two years previously the entire larnyx, the superior portion of the esophagus, and the anterior portion of the pharynx for carcinoma of the larynx. Breathing, eating, and drinking were made possible with the aid of a suitable prothetic apparatus. The patient could, besides, make articulate sounds, so that speech could be understood.

The Passing of the American Lancet.—With the issue of the *American Lancet* for the current month Dr. Leartus Connor, after a service of nearly twenty-four years, retires from the editorial chair, and with his withdrawal the publication of the *Lancet* comes to an end. With the retirement of Dr. Connor and the passing of the *Lancet* medical journalism loses one of its cleanest and brightest monthlies and the medical profession a most conscientious and faithful journalistic representative.

The Ohio State Medical Society will hold its semi-centennial convention at Columbus, May 15th, 16th, and 17th. In addition to the usual scientific program a lecture by Dr. Judson Daland, of Philadelphia, on "Malaria," illustrated by lantern slides, will be a prominent feature.

The Society proposes to organize a committee on State medical legislation based upon representation from all the counties in the State.

As to "Books and Pamphlets Received."—Our announcements of books and pamphlets in THE MEDICAL NEWS are designed to give notice only of the most recent literature. We can, therefore, include in the list only those lately published. Many have been sent us that were several years old.

The Influenza Epidemic.—The mortality from influenza in London for the week ending March 2d showed a very considerable further increase. The deaths attributed directly to this disease, which had been 13, 24, and 111 in the three preceding weeks, rose to 296 during the week.

No Inter collegiate Foot ball at Harvard.—At a meeting of the Faculty of Harvard College, on March 19th, the opinion was, upon vote, expressed "that no student under their charge should be permitted to take part in inter-collegiate foot-ball contests.

The Kentucky State Medical Society will hold its fortieth annual meeting at Harrodsburg, June 12, 13, and 14, 1895.

Alphonse Guerin, a distinguished French surgeon, died recently at the age of seventy-seven.